Drug & Cosmetic INDUSTRY

OCTOBER, 1949

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THOMAS R. FARRELL, Editor
ELMER SHEETS, Managing Editor
FRANCIS CHILSON, Production Consultant
MILTON A. LESSER, Technical Editor
HARRY G. KELBLY, Raw Material Editor
FRANK CHILD III, News Editor
HILDA C. McCOLLOM, Art Director

The Drug and Cosmetic Industry is published monthly by Drug Markets, Inc., Frazer V. Sinclair, President and Treasurer, Thomas R. Farrell, Vice-president and Secretary. Publication Address, 28 Renne Ave., Pittsfield, Mass., U. S. A. Editorial and General Office, 101 West 31st St., New York 1, N. Y., U. S. A.

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B	Potassium Hydroxide	0.7%
	Sorbo (Atlas D-sorbitol solution)*	3.7%
	Water	73.1%
	Preservative	q.s.
C	Perfume	q.s.

*Sorbo is here employed as a humectant and to provide smooth emulsion inversion (O/W to W/O) during application.

Preparation: Heat (A) to 90° C. Heat (B) to 95° C. Add (B) to (A) with stirring. Stir to 60° C., perfume and pour.

HERE's a formula in which the Atlas emulsifier, Arlacel 83, acting as an assistant to the usual soap emulsifier, enables you to produce a high pearl facial cream that can be poured *hot*, a feature not attained with the ordinary soap emulsifier alone.

This is just a single sample of the scores of formulas you'll find in the newest revision of the Atlas book DRUG AND COSMETIC EMULSIONS. These formulas offer you guides to new opportunities, not only in improving production methods, but also in enhancing cosmetic elegance through use of the versatile series of Atlas emulsifiers.

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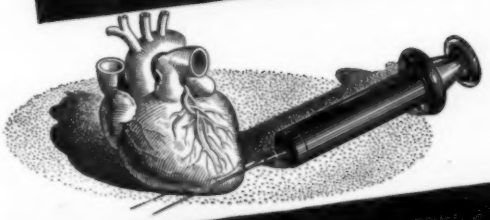
FROM TOOTH PASTE

TO HEART STIMULANTS



Nothing takes the place of Glycerine

Versatile? USP Glycerine has long been employed as a basic ingredient in the manufacture of tooth pastes . . . while one of its many derivatives (glyceryl trinitrate) serves modern medicine as an effective heart stimulant!

In hundreds of other drug and cosmetic applications, USP Glycerine has become the "indispensable ingredient." According to a recently published survey, 10% of all prescriptions compounded by pharmacists contain—USP glycerine. And for good reason! No other product can match this unique combination of properties: it's an emollient . . . a sweetener . . . a solvent . . . a softener . . . a humectant . . . a preservative. It is edible, nutritious and, in proper dilutions, can be safely applied to the most delicate membranes.

That's why—in a vast number of products that find daily use in the home and hospital—*Nothing takes the place of glycerine!*

GLYCERINE PRODUCERS' ASSOCIATION
295 Madison Avenue, New York 17, N. Y.

Technical GLYCERINE NEWS

AN EFFECTIVE METHOD OF TREATING PERITONITIS by glycerine application is described in a recent medical paper. Drs. E. D. and R. W. Smith report in *The Southern Surgeon* that glycerine induces drainage from infected tissues and exerts antiseptic and bactericidal action on the bacteria of peritonitis. At the same time, it permits normal functioning of the body cells to promote healing. (D-17)

★ ★ ★

GLYCERITE OF HYDROGEN PEROXIDE originally developed for external treatment of infected wounds and such stubborn infections as tubercular abscesses—has now been found to be effective in combatting the organisms which cause tetanus and gas gangrene. It has demonstrated greater antiseptic activity against these organisms than 31 of 32 tested antiseptic solutions. (D-18)

★ ★ ★

NEW TOOTH PASTE contains glycerine as a major ingredient! One formula is comprised of quaternary ammonium compound, foaming agent, methyl cellulose, glycerine, tricalcium phosphate and calcium carbonate. Using the wet filter paper method at 37° C, this preparation killed *Staphylococcus aureus* organisms in 2 minutes (1:8 dilution). (D-19)

★ ★ ★

GLYCERINE SECTIONS OF BEILSTEIN TRANSLATED! Now available for the first time, an English translation of the Glycerine Sections of Beilstein's famous *Handbuch der Organischen Chemie* (4th Edition). Complete in *one* volume entitled "GLYCERINE AND SOME GLYCERINE DERIVATIVES."

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I should like to know the source of those items appearing in Technical Glycerine News which I have checked below.

☐ D-17 ☐ D-18 ☐ D-19

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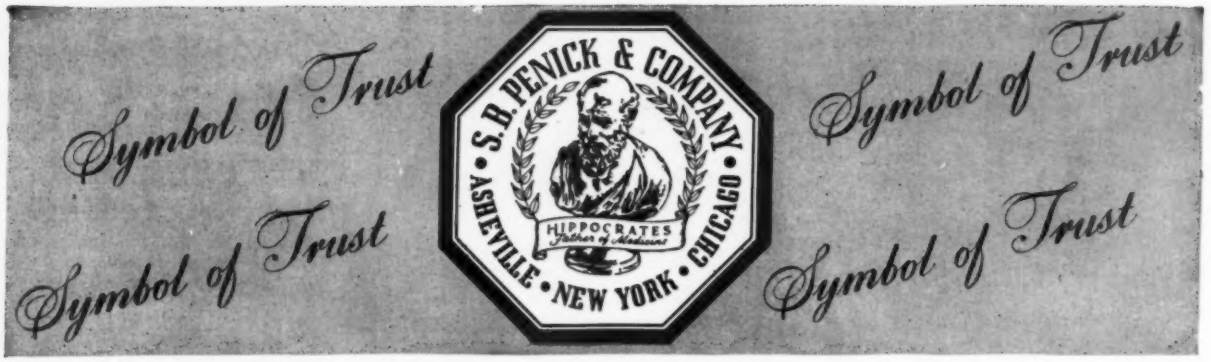

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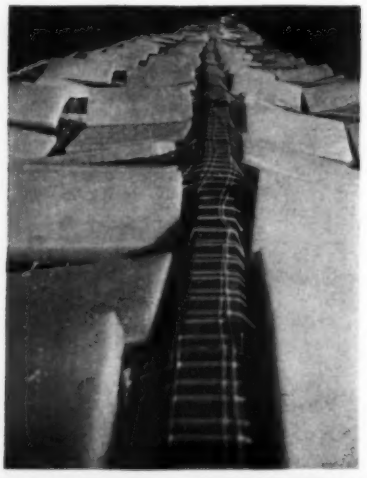
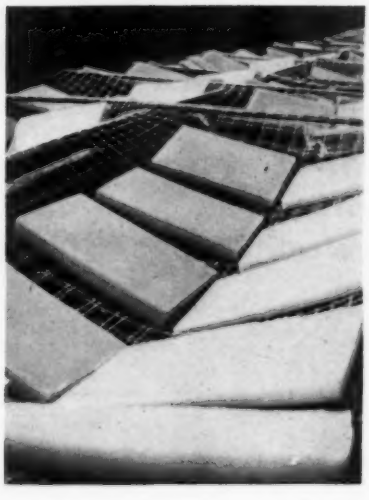


2 *Beeswax slabs on nets exposed to bleach in sun and air.*

3 *Final stages of Beeswax slabs exposed to bleach in sun and air.*



4 *Beeswax Flaking and Ribbon Machine.*

Bleaching Beeswax exposed to sun and air is perhaps the most ancient of all industries.

Serving the Cosmetic and Pharmaceutical Trades for 69 Years

Snowflake Brand White Beeswax U.S.P. is endorsed by the cosmetic, drug and chemical professions for purity and whiteness. Toilet cold cream manufacturers whose requirements are most discriminating emphasize its perfection.
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"I don't know whether he promised me a permanent home or just a home permanent."

KEEPING POSTED

Antihistaminic Cold Tablet

SINCE the antihistaminic drugs, if taken early enough, have been discovered to check the common cold in a large percentage of cases, these drugs are now on their way to becoming ingredients of cold tablets. Recently a tablet was announced by Schering which contained that company's antihistaminic preparation, Chlor-Trimeton maleate, in combination with the well-known ingredients of the APC tablets—aspirin, phenacetin and caffeine. Thus the tablet offers the probability of completely aborting the cold, or of relieving the symptoms of the cold if the cold is not stopped, or is not stopped immediately. We wonder if the patient will be able to tell which of the ingredients are working at any particular time,—not that he will particularly care if the tablet cures his misery in either way.

Investigating Coca Leaf Chewing

THE habit of chewing coca leaf of Peru—the source of cocaine—is "a matter of international importance," a representative of Peru stated before the Commission on Narcotic Drugs and before the Economic and Social Council of the United Nations. Coca leaf chewing has been practiced not only in Peru, but also in Colombia, Ecuador, Bolivia, and the Northern part of Argentina for over four hundred years. Millions indulge in the habit with most of the addicts belonging to the working class. The question of whether or not the habit is harmful, is still "highly controversial and therefore, this peruivan representative requested an inquiry into the social, medical, economic, agricultural, nutritive, and other effects of the habit. On September 10, a four member team of experts who comprise the United Nations Commission of Inquiry into the effects of coca leaf chewing, left for a one month stay in Peru to study the effects of the habit on the indigenous population of that country. Also the experts will conduct on-the-spot investigations into the possibilities of limiting the production and regulating the distribution of coca leaves.

The four experts are: Burroughs Wellcome Senior Vice-president Howard B. Fonda, Chairman of the Commission; Professor F. Verzar, Professor D. Granier-Doyeux, and P. Razet.

Vick Financial Observations

IN REPORTING slightly increased sales of $42,040,-981 for the fiscal year ended June 30, against $41,-674,040 for the preceding year, Vick Chemical Company President E. L. Mabry states:

"Continued expansion in the volume of our proprietary divisions, both at home (Vick Products) and abroad (Vick International), our pharmaceutical division (The Wm. S. Merrell Company) and our veterinary medicine division (Jensen-Salsbery Laboratories, Inc.) contributed largely to this favorable result. Cosmetics and toiletries (Prince Matchabelli, Inc. and Alfred D. McKelvy Company) continued to meet with consumer buying resistance, an important factor being the continuation of the wartime 20 per cent excise tax, which apparently creates the impression that prices are too high—actually our own trade prices on most items have been maintained at prewar levels."

With reference to the damage caused to the Holland Tunnel Fire, which was caused by a shipment of carbon bisulphide manufactured by the J. T. Baker Chemical Co., a Vick subsidiary, Mr. Mabry reported:

"To date some damage claims have been filed against J. T. Baker Chemical Company. However, it is not possible at this time to estimate the number of claims which may be made or to determine the limits of the damages which may be asserted."

More Cortisone Raw Material

MORE desoxycholic acid from ox bile is to be supplied by Winthrop-Stearns to Merck and Co. for the manufacture of increased supplies of Cortisone. An arrangement has been entered into by the two companies so that Merck will receive the annual yield of desoxycholic acid from 200,000 cattle. Winthrop-Stearns is quadrupling its facilities for the manufacture of this substance, and when the addition is completed on January 1, the company will be the major American producer. Winthrop-Stearns President Theodore G. Klumpp says that "a considerable experience has been developed in the manufacture of desoxycholic acid through the long-time production of bile salt preparations by Winthrop-Stearns, George A. Breon & Company, and the American Ferment Company, all Sterling

Drug subsidiaries. As the result of this cumulative know-how, scientists in the laboratories of Sterling-Winthrop Research Institute have developed a synthetic process which considerably increases and makes more economical the production of desoxycholic acid from ox bile. The synthetic process prepares this material from cholic acid, which is present in bile and in much larger amounts than the naturally present desoxycholic acid. If only the naturally present acid were isolated, without reference to the utilization of cholic acid, nearly 1,000,000 head of cattle would be required to produce the amount of starting material for cortisone which Winthrop-Stearns will supply to Merck during the next twelve months."

However, Dr. Klumpp warns that "cortisone will continue to be in severely limited supply despite the expansion of desoxycholic acid production. Published estimates would seem to indicate that the quantity of desoxycholic acid we will manufacture for Merck will yield about 2,700 grams of cortisone. This corresponds to only 27,000 patient days when the dosage is 100 milligrams per day. There can be little hope of the general availability of Compound E in the current state of scientific knowledge. Present methods cannot produce enough starting material for even a small fraction of the demand for cortisone, because production if necessarily limited by the cattle population. Research must discover more widely available materials, or develop new processes before relief from arthritis can be realized by the millions of sufferers."

To illustrate the insignificance of this latest supply of raw material in the cortisone picture, there are 8 million arthritic sufferers in this country alone who would require 100 milligrams of cortisone every day in the year Therefore, these sufferers would represent 2,920 million patient days per year, against a mere 27,000 patient days represented by this additional raw material. Also additional supplies of cortisone would be required for treatment of rheumatic fever and other conditions in which it might be found to be effective.

Importance of ACTH

ACTH—adrenocorticotropic hormone—another substance for the relief of rheumatoid arthritis and diseases of the adrenal glands is in very short supply because of the relatively small amount of pituitary glands from hogs available for use as raw material. Dr. John H. Glynn, assistant manager of the Armour Laboratories states that it requires 400,000 hogs to make one pound of ACTH. Indicating the impossibility of obtaining sufficient production of ACTH by means of hogs, Dr. Glynn said:

"But ACTH has great value. By using it as an investigative tool, something else in abundant supply may be used in its place. This is precisely what is being done with ACTH at the present time."

Vitamin B_{12} Cut Sharply

GREATER economies resulting from expanded production of vitamin B_{12} have brought about a price reduction of almost forty per cent. The price has been cut from $11.50 per milligram to $6.50 per milligram, a reduction of $5.00. While this price might still seem high when it is realized that a price of $6.50 per milligram represents a price of $6,500 per gram, or $6,500,000 per kilogram, a unit in which some vitamins are sold, the dosage of vitamin B_{12} used in cases of anemia is extremely small, and is measured in micrograms, which are millionths of a gram, or thousandths of a milligram. In cases of pernicious anemia in relapse, the dosage is 15 micrograms once or twice a week until remission occurs. The vitamin B_{12} for this administration, based on the bulk price given above is not over 20 cents for the two injections per week. Therefore, although the finished medicine will cost the doctor or the patient considerably more than 20 cents, the price is well within the range in which it can be freely used for the correction of this disease. Doubtless further reductions in the cost of this material will be announced from time to time as further economies in production costs are effected.

Advertising and Labeling Claims

MAKING claims in advertising that are not permitted to be made in the labeling of a product can get a manufacturer into trouble. Also the use in advertising of testimonials containing representations not allowed in the labeling of a product likewise can bring trouble to a manufacturer. These points were indicated in a recent action brought against the Colusa Remedy Company by the Food and Drug Administration. It seems that the FDA seized a Colusa product in 1942, and the company allowed it to go by default. The labels were changed about 1945, when the manufacturer removed all indications from the label. The information concerning the indications was carried in newspaper and other forms of advertising. In 1947 the FDA secured an injunction against Colusa for distributing a product which was insufficiently labeled. The labels were again changed, this time to include references to psoriasis, eczema, athlete's foot, and leg ulcers, as well as containing directions for use. At the same time newspapers contained excerpts from testimonials which had been received from doctors and druggists, and letters from satisfied customers which included statements concerning the value of the product in relieving conditions other than those mentioned in the labeling.

The FDA proceeded on the grounds that the company had violated the injunction inasmuch as they had distributed a product recommended in advertising as of value in certain conditions and did not include in the labeling directions for use in relieving those particular conditions. The District Court found the manufacturer guilty, and Ninth Circuit Court of Appeals upheld the decision.

The company based its appeal on the premise that since the recommendations in excess of those included in the labeling were excerpts from testimonials which had been voluntarily sent to them, they were not to be considered as representations being made by the company. However, the Court held in effect that since the company caused these statements to be printed, they were assuming responsibility for such statements and recommending their product for the relief of these particular conditions.

Geigy Company Enters Drug Field

AT LONG last the well-known Swiss dye manufacturing firm of Geigy has entered the pharmaceutical firm in this country. Other Swiss dye manufacturers such as Ciba and Sandoz have been in the drug field for many years, but Geigy has not. Now they enter

the field with a product said to be almost a certain cure of scabies after only one or two applications. Called Eurax, the product contains 10 per cent of N-ethyl-o-crotonotoluide. Ernest Hammer is director of the new Geigy division, and sales and distribution are under the direction of Arthur F. Peterson, formerly with Squibb, Schering, and Heyden, but more recently a consultant with Geigy as one of his clients.

Barbiturate Raids in New York

AFTER having upon the statute books of the City for some six years, a provision outlawing the sale of barbiturates without a doctor's prescription, New York City detectives chose to execute raids upon two druggists on September 22, which day happened to be the closing day of the N. A. R. D. convention in New York. The detectives and other officials were quick to state that the great majority of druggists in New York were obeying the law. One of the druggists who was raided was said to be the source of supply for the Greenwich folks, and the other one was said to be the source of supply for the Broadway crowd.

Steroid Hormones and Disease

CORTISONE and ACTHS are only two members of an extensive chemical category of vast potentialities, said Dr. Harvey E. Billig, Jr. last month before the Southern California Section of the International College of Surgeons. Giving an informal resume of this group of chemicals, Dr. Billig reported "dramatic" results in arresting and correcting the ravages of such ailments as poliomyelitis, rheumatic fever, gout, and even dementia praecox or schizophrenia. The chemical category involved in the present work is steroids, a broad classification of compounds based on their resemblance to cholesterol. Dr. Billig said that steroid hormones are a natural product of human adrenal glands, ovaries and testicles, and are important in the metabolism of connective tissues like ligaments whose functioning characteristically is impaired in the diseases mentioned. Dementia praecox and some other mental disorders are accompanied by a development of fibrous tissues analagous to impaired ligaments, surrounding blood vessels in the brain. "Polio, for instance," he said, "does other things beside destroying nerve tissue. It inhibits steroid production by its toxic effect on secreting glands." The deleterious effects of these diseases can be corrected by artificial supply of steroids, preferably by intramuscular injection, said Dr. Billig. These injections restore the "steroid balance" in the afflicted individual, relaxes connective tissues, reviving normal metabolism and preventing fibrosis; and in many cases leads to revival of normal glandular balance, he stated. Such treatment involves catching ligament deterioration and contraction before it goes too far; properly assessing the steroid unbalance in the individual and administering accordingly; and accompanying medication with proper muscular manipulation treatments and exercise. If the restretching of ligaments contracted by disease is too violent, new fibrous tissue may form and make rehabilitation even more difficult. Dr. Billig would not tell what steroids he is using aside from the fact that testosterone and whole adrenal cortex play important parts. However, he said that he doesn't have any better steroids than anybody else. He said that he had used steroids derived from both plants and animals and that the cost was within reach of the average-income patient.

A typical case of rehabilitating impaired connective tissue might take several months, with steroid injections being gradually tapered off. Some patients reported continued well-being after a period of years, while others would revert to steroid unbalance and require a new series of injections, usually at a reduced rate. In polio steroids do not promise repair on nerve damage, but only of the concomitant muscle fiber deterioration. Use of steroids to counteract glandular deficiencies in some ailments is a logical outgrowth of insulin and electric shock treatments for mental disorders, in which one of the main results is stimulation of the pituitary gland, which in turn activates the adrenal, ovarian and testicular glands.

Tariff Flexibility and Lower Sterling

THE twin shocks of Congressional approval of Presidential authority to lower tariffs in negotiating agreements, and the devaluation of the British Pound Sterling and other currencies in the sterling bloc came almost together. Perhaps it is better this way, for if trade agreements were negotiated with tariff changes based on the four dollar value of Sterling, the effects of these agreements could later be drastically changed by currency devaluation.

The tariff controls given to President Truman will create an air of uncertainty in all lines of business since no one can tell when he is going to be faced with very stiff, and sometimes ruinous competition from foreign goods as the result of presidential action on tariffs. The full effect of devaluation of the foreign currencies on the various industries in this country might take some time to be fully felt, but when the effect comes, it will be relatively stable and manufacturers in this country will know just where they stand. They may never be certain where they stand under the import tariffs.

Huisking Sees Latin-American Opportunities

IF THE Government and industry of this country would divert some of the money being poured into Europe for recovery of markets which may never be revived, and spend it in developing business and industry in South America, an inter-American trade could be developed which would be both profitable and long-lasting, said Charles L. Huisking, of Chas. L. Huisking & Co., upon his return from a trip through Latin-America. He left South America deeply impressed with the potentialities in all countries in general, and in Brazil in particular, he said. Currently, he stated, there are certain trade restrictions between the United States and Brazil said to be due in part to a dollar shortage there. Under the present Brazilian administration, strong financial control is in operation and this will soon bring Brazil out of its economic pinch and result, within the next few months, in the payment of long overdue accounts to American business firms.

Meanwhile, Brazilian restrictions on import licenses are a hardship on American exporters, continued Mr. Huisking. However, he added, substantially improved trade is expected in the near future when the restrictions are eased because of the preferenc of Brazilian manufacturers for United States chemicals and proprietary items by virtue of their purity and cost. Reporting

on the primary menthol market in Brazil, Mr. Huisking found that the reported crop shortage due to last season's drought was very real and that, despite a stock carry-over of some 175 tons from previous seasons, current inventories in Brazil were barely more than 25 tons. Menthol being a speculative item, the price trend prior to the harvesting of the new crop in December and early January, will likely be upward, he said.

Diuretic Advertising Claims

THE Federal Trade Commission has issued a Cease and Desist Order against the advertising of a diuretic preparation said to contain extract of asparagus seed, extract of buchu, squill, extract of digitalis, podophyllum, potassium nitrate and oil of juniper. The preparation was recommended in advertising as being of value in relieving, among other conditions, getting up at night, pain in the region of the back and waist, sensitive back and slight swelling around the ankles. Among the Findings of Facts in the Order, appears the following:

"In truth and in fact, the juniper oil contained in the preparation will, under certain conditions, irritate normal kidneys, and this drug should never be used when kidneys are diseased. To do so may result in a serious injury. The drugs, digitalis and squill act as powerful heart stimulants and tend to accumulate in the body. Their use over a period of time may lead to serious injury to the heart and circulatory system. These drugs in the amount supplied by respondent's product, taken as directed, should only be used at the direction and under the supervision of a qualified physician."

The Order directs that the manufacturer discontinue the following representations:

"That said preparation will relieve or correct swollen ankles, pains in the regions of the back or waist or in any other region, or a burning sensation in the urethra, or scanty or too frequent urination.

"That said preparation constitutes a competent or effective treatment for any disease or disorder of the kidneys or bladder."

"The Order also forbids:

"Disseminating or causing to be disseminated any advertisement by means of the United States mails or by any means in commerce, as 'commerce' is defined in the Federal Trade Commission Act, which advertisement fails to reveal:

"That the juniper oil in said preparation will irritate normal kidneys, and that its use by a person whose kidneys are diseased may result in serious injury; and

"That each of the drugs digitalis and squill in said preparation tends to accumulate in the body, and that the use of these drugs, or either of them, over a period of time may result in serious injury to the heart and circulatory system of the user, and that said drugs should only be used at the direction and under the supervision of a qualified physician."

Can the Van Zandt Bill be Amended?

THE attempts by Congressional committees to place almost insurmountable obstacles in the way of drug exports by means of the Van Zandt as originally drafted and as reported out of committee, make us wonder in just what way the sponsors of this bill are trying to aid foreign countries and just what foreign countries they are trying to aid. The Congressional committees just plain refuse to amend this bill in a way that would result in full protection for foreign countries from the health angle, but which would leave manufacturers free from hampering requirements in their export activities. It seems to us that the true purpose of this bill might be sharply to curtail drug exports from this country, and that this purpose might be part of the plan of our Government to help in the rehabilitation of industry in other countries of the world. Just as with devaluation of the currencies of the Sterling bloc, and the power given to the President to reduce tariffs, perhaps this drug export bill is part of the underlying program of which the Marshall Plan is the most well-known part. It may be that the representatives of this industry who are frantically presenting proper arguments to have this bill amended in the interests of American drug manufacturers are only barking up the wrong tree. But then we don't know any other tree to bark up. It might be that the bill cannot be amended by appealing to these committees. Perhaps the only way is to get the cooperation of other members of Congress who are willing to fight for the rights of American business in foreign markets as opposed to the Administration activities to give all aid to foreign countries and let the domestic manufacturers fall by the wayside.

Restrictions on Botanical Imports

CONGRESS now has before it a bill (H.R. 160) which would amend Section 801 of the Food, Drug, and Cosmetic Act in such a way as to further restrict imports of botanical drugs into this country. In a number of cases where botanical drugs are brought into this country and are found not to meet the required standards, neither the importer nor the Administrator can be certain in advance whether or not the drugs can be cleaned or re-worked in such a way as to make them admissible. The whole procedure under the present law works on a basis of trial. However, if this bill is approved by Congress, the Administrator must make findings as to certain facts, and thus he will have to be very cautious in his findings. This amendment will do away with the present system of allowing experimental work to be conducted in the cleansing or re-working of drugs. This will doubtless result in many drug products that could be satisfactorily worked over to meet our requirements, being ruled out in the future. This can only result in increased costs for many botanical drugs, and shortages occurring with resulting hardships on manufacturers and temporary high prices from the activities of speculators. The bill has passed both Houses of Congress, but will be returned for approval of Senate amendments.

Drug Store Sales Ahead of 1948

SALES in drug stores are currently running ahead of last year, NARD Executive Secretary told the recent NARD convention. "Sales volume may possibly pass last year's $3,687,000,000 and will at least hold its own as the year draws to a close," he said. Local advertising is being stepped up throughout the country by druggists, he said, which is in addition to the $389 million invested annually by manufacturers. "Modernization of drug stores, begun two years ago, is continuing, and the aggressive enterprise of the retail druggist has never been better demonstrated than it is today," he concluded.

Dead Heat for Advertising Award

ABBOTT Laboratories, Hoffmann-LaRoche, Lederle Laboratories, and E. R. Squibb & Sons finished in a dead heat in for the BEST OF INDUSTRY awards, pharmaceutical industry, in the 1949 Direct Mail Advertising Association competition. Formal certificates were awarded to the four winners at the Direct Mail Advertising Association's 32nd Annual Conference in Chicago, September 21.

A.M.A. Cosmetic Committee Reports Progress

APPARENTLY the Committee on Cosmetics of the American Medical Association is getting enough business to make the establishment of the committee worthwhile from the viewpoint of the operators of these functions in the A. M. A. The Seal of Acceptance has been granted to forty-two products manufactured by five companies, and only minor details are holding up acceptance of additional products. There is said to be about seventy-five products for which acceptance is pending.

The first products to be accepted are Lever Brothers' Rayve Home Permanent (Rayve Creme Waving Lotion and Rayve Neutralizer), and twenty-six products of Marcelle Cosmetics, Inc., known as hypo-allergenic cosmetics. The Marcelle products are: Face powder, dusting powder and talcum powder, cleansing cold cream, liquefying cream, skin lubricating cream, special foundation cream for dry skin, special foundation cream for oily skin and vanishing cream, hand cream, special skin lotion, astringent, mild astringent, foundation lotion for dry and normal skin, foundation lotion for oily skin, lipstick, special formula No. 372 lipstick, lip and facial rouge, special blend No. 372 lip and facial rouge, dry rouge, eye shadow, skin lubricating oil, soap, shampoo, deodorant, waving and curling fluid, mascara.

Lever Brothers are advertising the fact that their home permanent preparations are A. M. A. accepted, and have made the announcement on the Bob Hope radio show which is primarily advertising another Lever Brothers product—Swan Soap. Perhaps this is being done in an effort to place the Rayve Home Wave on an equal footing with Toni so far as approval of organized medicine is concerned. Even though no announcement of acceptance of Toni has been made, it will be recalled that a short while back an article appeared in the Journal of the American Medical Association indicating that home permanent waving was a safe procedure. The article stated that Toni had supplied the material with which the testing was done. This article was widely publicized by the American Medical Association as well as by Toni.

However, this is the very procedure to which we voiced objection some nineteen years ago when a drug manufacturer advertised to the public the fact that his product was A. M. A. approved. At that time we pointed out that it was not sound for the drug manufacturers to spend money by means of advertising to build up the strength with the public of a group who was trying to build up its control over them. Drug manufacturers stopped this procedure shortly after.

We are equally certain that the same thing applies in the present instance. Merely to gain a temporary competitive advantage, the manufacturer advertising such a seal of approval, educates the public to buy cosmetics not on the reputation or statements of a manufacturer, but on the approval of an outside body without legal standing, and a body who will eventually attempt to force down the throat of the industry in general its own ideas. Manufacturers can spend their money to much better advantage in buying advertising which tends to build their own prestige and causes the consumer to have faith in the name and products of the manufacturer rather than in some self-appointed regulatory body which the manufacturer might in all sincerity disagree at some future time.

Cosmetic Literature Wanted

IT WILL be recalled that the Toilet Goods Association is sponsoring a critical review of the literature on skin irritation at the Laboratory of Applied Physiology of Yale University. In order that the review will be as complete as possible, the TGA has called upon its members to submit any unpublished data covering irritation induced by toilet preparations, soaps, and raw materials used in their manufacture. Harold D. Goulden, director, Scientific Research and Standards of the TGA, points out that it would be of great service to the entire cosmetic industry, as well as to the medical profession and the public if all members of the industry, as well as all having an unpublished data of this sort would forward it directly to Dr. Leon A. Greenberg, Laboratory of Applied Physiology, Yale University, 4 Hillhouse Avenue, New Haven, Conn.

More Types of Ammoniated Products

NOT only are tooth powders, tooth pastes, and wafers available to keep the mouth at all times in a thoroughly ammoniated condition but now lozenges and chewing gum are being made available. Kathryn, Inc., headed by Harry G. Daumit who sold his earlier company, Kay-Daumit and its Luster-Creme to Colgate in 1947, is marketing both the lozenges and the chewing gum under the name of Kay-Amo. Both of the products have been licensed by the University of Illinois Foundation, and in addition to the ammoniated formula, both products contain chlorophyl, recently reported to have not only dental caries inhibiting properties, but gum healing properties as well. Kathryn is currently awaiting results of clinical tests on the products which were recently undertaken by two leading Midwestern dental schools. No sugar is used in the products as sugar is said to encourage the growth of lactobacillus in the mouth. Non-sugar sweetening agents are used instead. The products are not offered as substitutes for dentifrices, but as adjuncts thereto. Instructions recommend that they be taken after each meal and before retiring. The products are offered in boxes of 24 for 49 cents, and in boxes of 66 for one dollar.

Therapeutic Research Foundation Projects

THE Therapeutics Research Foundation has drafted outlines for proposed research study on boric acid, hydrastis, and bitter tonics have been distributed to a number of manufacturers. Copies will be sent to anyone who is interested in cooperating in one or more of these projects. Also in the near future another outline covering a study of antihistaminic drugs will be ready. This will also be distributed to anyone interested in cooperating in research to be conducted into these products and their effects.

TRENDS IN GOVERNMENT

By DR. FREDERICK J. CULLEN*

ABOUT fifteen years ago a discussion of the trends in Government would have been concerned primarily with bureaus, departments, administrations, etc., but today we will give them only a few minutes.

A statement was made recently concerning the bureaucratic administration in Great Britain, to the effect that their economy is planned by a maze of civil servants, but then no one has ever discovered how to "plan the planners" who have enormous power without commensurate responsibility. They do not pay for their mistakes out of their own pockets. The British people do the paying. It would seem that the same comment applies in the United States.

In a recent address made at a meeting of the Virginia Bar Association, Donald Richberg, one-time head of the National Recovery Administration, in referring to our Constitution and present-day Government, said,

> "The impediments to tyrannical authority, created by division of powers between the executive, legislative and judicial branches, have been gradually destroyed by creating commissions in which laws are made, interpreted and executed by one body of men."

Mr. Richberg's statement applies to many agencies of the Government, but the one in particular with which all of you are familiar is the Federal Trade Commission.

Prior to 1938, the Federal Trade Commission Act granted only minor control over adve:tising. At that time the members of the Commission were extremely cooperative with industry. A manufacturer or advertiser was able to meet with representatives of the Commission to discuss his problems, and usually a satisfactory conclusion was reached. Rapid strides in the improvement of advertising were being made through cooperation, and the consuming public was the beneficiary. Shortly following the passage of the Wheeler-Lea amendments to the Federal Trade Commission Act, which gave the Commission considerable power and authority to regulate business and its advertising, the Commission began to assume somewhat the attitude of a dictator. For example, you will recall their attempts to control labeling as well as advertising. Perhaps information brought out during hearings on the Reece bill, conducted by the Interstate and Foreign Commerce Committee of the House, tended to cause them to modify slightly their policy.

Are you aware of their most recent request; that is, in advertising for medicinal preparations in which symptoms are mentioned? They are now attempting to force the manufacturer to include a statement in his advertising to the effect that the symptoms mentioned are more likely to be caused by conditions other than those that can be relieved by the product under consideration, and that under such circumstances the preparation would be of no value. Such a request, in my opinion, is not authorized by the Act and would seem to be an attempt to destroy advertising for medicinal products. At this time many of the members of the Commission's staff seem to be of the opinion that a manufacturer should be willing to accept whatever type of stipulation or cease and desist order they place before him—and like it. One of the members of the Commission's staff, while objecting to a certain ingredient being used in a product, is reliably reported to have stated—when asked about the evidence he had to substantiate his objections—that he did not have to try his cases in court. This is an example of an arbitrary opinion by one not responsible to Congress or the will of the voter. I will not discuss further the arrogance of power!

We have recently seen the Federal Food, Drug and Cosmetic Act amended by the passage of the Miller bill which in substance provides the Administration with authority to make seizures of products that have come to rest in a state. In other words, they can now seize a food, drug, cosmetic or device in the hands of the retailer. We are also familiar with the fact that the Supreme Court decision in the Sullivan case grants the Food and Drug Administration the authority under certain circumstances to prosecute a retail dealer. Therefore, the amendment to the Act and the Supreme Court decision have vastly extended the power of the Administration. State boundary lines, so far as the Food and Drug Act is concerned, have for all practical purposes been removed.

The Keefe bill, H. R. 4572, is pending in Congress and provides authority under certain circumstances for the Administration to subpoena records. Some are of the opinion that the enactment of this bill would grant the Administration the power to subpoena records prior to the institution of a prosecution. If the bill does afford such authority, it would be highly objectionable. But others of equal or better legal ability are of the opinion that the bill allows only for the Administration to subpoena records to be used in

*Executive Vice-president, Proprietary Association of America. Delivered before Drug, Chemical and Allied Trades Section, N. Y. Board of trade, September 23, 1949.

hearings in those instances when, for example, standards for foods are being established, or determinations are being made as to whether or not a drug belongs in the narcotic-hypnotic class. If this is the case, then in view of other powers granted by the Federal Government in similar cases, there could be no objection to the proposed bill.

The Van Zandt bill, H. R. 562, has passed the House and is pending in the Senate, and should be of great interest to all. From information available to us, the bill originated following the receipt by Mr. Van Zandt of a letter written by one of his constituents who moved to one of the Latin American countries and there purchased an American trade-marked item which, in her opinion, was not the same as she used in the United States. Hence, on the basis of a letter containing the opinion of one person, this bill was prepared and introduced. As originally written, it would have required an exporter to have in his files a copy of all laws and regulations pertaining to such products that were in force in the country to which his product was to be shipped at the time the preparation was manufactured. You realize it would have been impossible for a manufacturer to comply with such requirements. However, the bill was amended in the House by striking out that particular provision. But as it now stands, for all practical purposes if enacted, it will require the manufacturer to ship his product to foreign markets under the same labeling that is used in the United States, except perhaps in those few rare instances where the manufacturer may be able to show that by some exceptional circumstance he has received a type of order that would serve to exempt his product.

Products exported by the American manufacturer are in competition with medicinal preparations manufactured in other countries, the labeling of which does not contain the cautions, warnings, and other definitive statements that are required by American law. Such definitive labeling would for all practical purposes remove American products from the competitive field. It would seem that on the one hand Congress is supplying money to foreign Governments to rehabilitate their industries and to assist them in engaging in foreign trade; and, on the other hand, it is setting up barriers which would make it impossible for the American manufacturer to compete in the foreign-trade field.

The Van Zandt bill has been further amended to provide an exemption for products that are exported in bulk. If the bill is enacted, the American manufacturer will either contract with a manufacturer in a foreign country to prepare, package, and distribute his product; or he will ship the product in bulk and repackage it under a label satisfactory to the particular country. Under either circumstance, as I see it, it will mean a loss of employment for a number of Americans. Is that what Congress wants?

All foreign countries have their own health departments. Most of them require that an American manufacturer submit his product and its labeling to the Board of Health for consideration, and secure a license from that body before he can ship his product into the country. Manufacturers would not object to complying with the licensing provisions of foreign countries, nor to restrictions that would prohibit them from shipping products that are not safe for human consumption, are adulterated, or that fall below the standard professed in their labeling. That should be the extent of this bill. In its present form, the Van Zandt bill is of extreme importance to those who are engaged in, or contemplate entering, foreign trade business. The Food and Drug Administration is very active in the support of this bill.

On several occasions we have seen Sec. 507 of the Federal Food and Drug Act amended so as to add new antibiotics to the list of those that are already federally controlled. We are aware of the fact that there are those in the Food and Drug Administration who believe that all drug products should be handled under provisions similar to those now employed in the handling of insulin and antibiotics. Also, that members of the Food and Drug Administration and a few representatives of industry are of the opinion that the Act should be amended, by what we may call a general amendment, to eliminate the necessity of Congress adding new antibiotics to the list by periodic amendments. In other words, the Administration would be empowered to make such additions. It is rather difficult to understand why a manufacturer would be interested in sponsoring such an amendment. Can it be that he is not considering the matter from a long-range point of view? Or is he of the opinion that under such an arrangement it is possible that some of his products may be affected in such a way that he would gain a temporary advantage?

It is contended by some that the contemplated amendment will be prepared in such a way as to affect only new antibiotics. However, others contend that it will be practically impossible to write a satisfactory definition for an antibiotic, as well as to limit the scope of the amendment to antibiotics. Being familiar with the views of certain members of the Administration, it must be realized that such an amendment must be drawn with extreme care in order to prevent the scope of the amendment from being extended to cover all drug products. For example, a manufacturer may present a new drug application which members of this particular group would review, and he may be informed that the product should be presented under rules and regulations set up by the new amendment. This would mean licensing of the particular preparation. It can be reasonably assumed that this same group in a short while could extend this type of operation to a point where the drug business of the United States would be entirely on a licensing basis. In my opinion, this would not be desirable. If such an amendment should be enacted, it will be interesting to note whether or not the increased authority will affect those responsible for the administration of the Federal Food, Drug and Cosmetic Act.

Since we are discussing problems in 1949, and not

the early thirties, it is essential that we give consideration to trends in the executive, legislative, and judicial branches of our Government. The statements that I make are entirely nonpartisan. I merely want to call your attention to some facts, and to the trends in Government as I see them in Washington.

As you all know, our Government is rapidly proceeding towards centralization; that is, more power in the hands of a few. And in most instances these few are appointed officers and therefore not subject to control by the voters. You will recall the Richberg statement I quoted for you a few minutes ago to the effect that our present Government is getting around the impediments of the Constitution by creating commissions which make the laws and interpret them.

In 1848 Karl Marx announced his theories of Government. He stated,

"Political power is merely the organized power of one class to oppress another."

He recommended the abolition of private property, a heavy progressive income tax, centralization of credit in the hands of the central Government, extension of Government ownership and production, and national control of education. Let's look at the record and see how we have progressed along those lines.

In 1913 under the Taft administration, the 16th amendment was added to the Constitution, giving the Government the right to tax individual incomes. During the course of debates in Congress at that time, one to two per cent was considered as a maximum for income tax, and a tax of ten per cent was considered preposterous. Yet today under the surtax brackets, the Government may take more than 90 per cent of the earnings of some, and these taxes affect primarily those citizens who have the most initiative and the greatest creative ability. It would seem that under our tax system the Government is attempting to follow a principle announced by Voltaire when he stated,

"The art of Government consists in taking as much money as possible from one class of citizens to give to another."

The records show at the present time about 33 per cent of the American income is paid out in taxes—11 per cent direct, and 22 per cent concealed. By "concealed" tax we mean, for example, the 53 separate taxes on a loaf of bread, the 127 taxes on a roast beef, and 201 taxes on a gallon of gasoline. You cannot make a purchase without paying a Federal tax. The tax collected in the United States, as I have stated, is about 33 per cent of income. Socialized England takes about 40 per cent of income in taxes. Could it mean that we are only 7 per cent tax-wise away from Socialism?

It is of interest to note that in the recent budget presented by the Library of Congress a sum of $1500 to $2000 was included for the purpose of piping music into the file room. The ladies may be interested in a headline that appeared in a Washington paper dated August 5 which stated that,

"An efficiency rating never got a gal a date yet, as any government girl will gladly testify."

The article further explained that the Government was importing from Detroit a firm specializing in self-improvement methods. The course was to include lessons on skin and figure improvement, make-up tips, a rundown on hairdos and hair care, discussions on taste in dress, and ways and means of looking like a million dollars on a government salary. It is also stated that this course usually retails for $150 per person, but the cost to the government girl would be $3.00 with each department making arrangements for the course for its employees. There are those who wonder what the answer is to a $150 course for $3.00. With the Government providing music during working hours and glamour-girl courses, the non-government employers in Washington are wondering, "What next?"

The thirty presidents who preceded Franklin Roosevelt during a period of 144 years, spent a total of $112,203,000,000. Mr. Roosevelt spent during his twelve years a total of $372,242,000,000—or more than thirty presidents in 144 years preceding him. Mr. Roosevelt spent $31,020,854,000 on the average per year, whereas Mr. Truman during his term of office has spent $45,016,855,863 per year, and he continues to ask for more. Therefore, there are those who consider Mr. Truman the world's most costly luxury. I believe Marx would have been satisfied with our tax spending.

We are all familiar with the Government's control of credit buying, loans and interest rate on loans, as well as control over our monetary system. It is estimated that when our Government went off the gold standard in 1933, the value of savings dropped about 41 per cent. We are familiar with the controlled credit buying and its effects on the housing and rent situation. Landlords seem to be getting out of the "for rent" business and our Government is rapidly becoming a landlord in many sections of the country. It is estimated that our Government is a landlord for some 557,000 American families and, allowing four persons for an average family, this means that approximately 2,300,000 people are dependent upon the Government for a place to live.

Do you know that H. R. 2756 has been introduced in Congress by Spence of Kentucky which gives the President absolute power to build and operate any kind of factory or mill he may choose in competition with free enterprise and free labor?

It is not necessary for me to discuss with you the control exercised by the Federal Government over production and distribution of manufactured products. But through subsidies the Federal Government at the present time also controls farm production to a great extent, and it is stated that if the proposed Brannan farm legislation, which has been called an economic monstrosity, is enacted, the farmer will be completely regimented. This would also fit in with the Marx theory.

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New Pharmacopoeia Revision Head

A NEW chairman of the Revision Committee of the U. S. Pharmacopoeia has been elected to succeed Dr. E. Fullerton Cook who completes his third ten-year term of office in May, 1950. Dr. Cook's successor is Dr. Lloyd C. Miller, who will bear the new title of Director of Pharmacopoeial Revision for the next ten years.

The announcement of the election of a new pharmacopoeial revision head at this time might surprise many who are used to this action being taken at the Pharmacopoeia Conventions which are held every ten years. However, it must be recalled that this system has been changed and no longer will the election to this important post depend upon the heated political maneuvering quite often rampant at the convention sessions. Therefore, Dr. Miller was unanimously elected to his position by the U. S. P. Board of Trustees which held a special meeting for this purpose on September 17.

Because of the importance of this position, we give the complete resume of his history as supplied to us by the U. S. Pharmacopoeia:

Dr. Miller comes to this important position with well-rounded training in many of the fields which are so vital to the pharmacopoeial program of today. He has been a member of the U. S. P. Revision Committee since 1944 and became chairman of the Subcommittee on Biologic Assays in 1946. He was also in close contact with the revision of the U. S. P. XI and of XII, during his career in the U. S. Food and along Administration,

Dr. Miller was born in Streator, Illinois, on July 2, 1907. He received a B.A. degree with honors in Chemistry from Pomona College in California in 1929 and his Ph.D. from the University of Rochester School of Medicine and Dentistry in 1933 with his major in Biochemistry.

From 1929 to 1933, Dr. Miller was Teaching Assistant in Pharmacology, University of Rochester School of Medicine and Dentistry; 1933 to 1935, Research Fellow at the Upjohn Company, serving in Bio-chemistry, primarily in the steroid sex hormone field; 1935 to 1943, with the Division of Pharmacology, U. S. Food and Drug Administration, Washington, starting as an Assistant Pharmacologist and advancing to Senior Pharmacologist in 1940, his work being both regulatory and investigative in nature; 1943 to 1944, Senior Pharmacologist with the Winthrop Chemical Company;

DR. LLOYD C. MILLER

1944 to the present, Director, Biology Division, Sterling-Winthrop Research Institute, Rensselaer, New York, now directing the activities of a staff of about 65 biologists who represent several specialties including bacteriology, virology, biochemistry, pharmacology, and pathology. Dr. Miller has been one of the most active members on the U. S. P. Revision Committee, handling his own subcommittee and related problems in a thorough manner, and also taking an active interest in the several other U. S. P. subcommittees and advisory boards on which he serves. His contact

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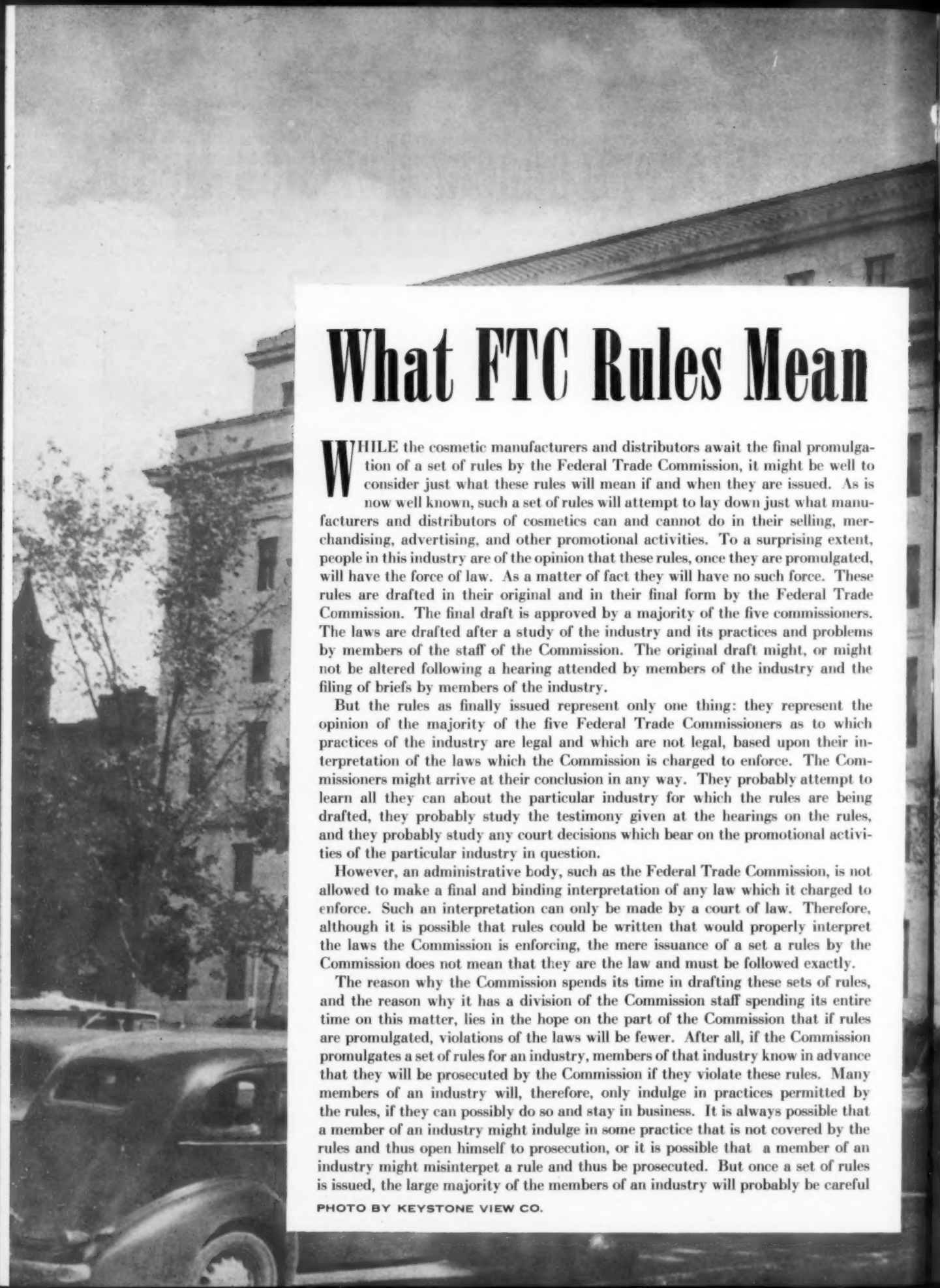


What FTC Rules Mean

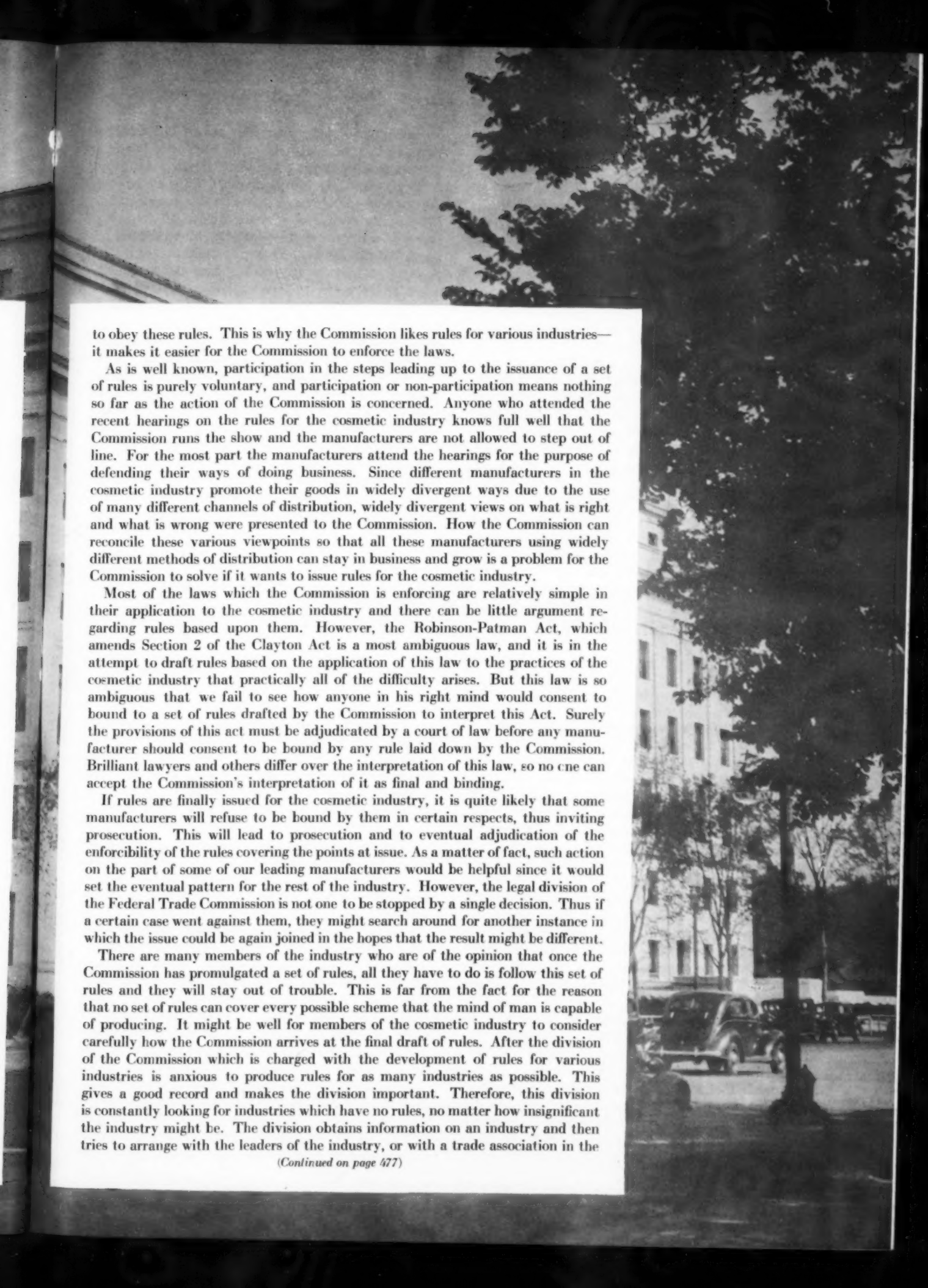
WHILE the cosmetic manufacturers and distributors await the final promulgation of a set of rules by the Federal Trade Commission, it might be well to consider just what these rules will mean if and when they are issued. As is now well known, such a set of rules will attempt to lay down just what manufacturers and distributors of cosmetics can and cannot do in their selling, merchandising, advertising, and other promotional activities. To a surprising extent, people in this industry are of the opinion that these rules, once they are promulgated, will have the force of law. As a matter of fact they will have no such force. These rules are drafted in their original and in their final form by the Federal Trade Commission. The final draft is approved by a majority of the five commissioners. The laws are drafted after a study of the industry and its practices and problems by members of the staff of the Commission. The original draft might, or might not be altered following a hearing attended by members of the industry and the filing of briefs by members of the industry.

But the rules as finally issued represent only one thing: they represent the opinion of the majority of the five Federal Trade Commissioners as to which practices of the industry are legal and which are not legal, based upon their interpretation of the laws which the Commission is charged to enforce. The Commissioners might arrive at their conclusion in any way. They probably attempt to learn all they can about the particular industry for which the rules are being drafted, they probably study the testimony given at the hearings on the rules, and they probably study any court decisions which bear on the promotional activities of the particular industry in question.

However, an administrative body, such as the Federal Trade Commission, is not allowed to make a final and binding interpretation of any law which it charged to enforce. Such an interpretation can only be made by a court of law. Therefore, although it is possible that rules could be written that would properly interpret the laws the Commission is enforcing, the mere issuance of a set a rules by the Commission does not mean that they are the law and must be followed exactly.

The reason why the Commission spends its time in drafting these sets of rules, and the reason why it has a division of the Commission staff spending its entire time on this matter, lies in the hope on the part of the Commission that if rules are promulgated, violations of the laws will be fewer. After all, if the Commission promulgates a set of rules for an industry, members of that industry know in advance that they will be prosecuted by the Commission if they violate these rules. Many members of an industry will, therefore, only indulge in practices permitted by the rules, if they can possibly do so and stay in business. It is always possible that a member of an industry might indulge in some practice that is not covered by the rules and thus open himself to prosecution, or it is possible that a member of an industry might misinterpet a rule and thus be prosecuted. But once a set of rules is issued, the large majority of the members of an industry will probably be careful

PHOTO BY KEYSTONE VIEW CO.



to obey these rules. This is why the Commission likes rules for various industries—it makes it easier for the Commission to enforce the laws.

As is well known, participation in the steps leading up to the issuance of a set of rules is purely voluntary, and participation or non-participation means nothing so far as the action of the Commission is concerned. Anyone who attended the recent hearings on the rules for the cosmetic industry knows full well that the Commission runs the show and the manufacturers are not allowed to step out of line. For the most part the manufacturers attend the hearings for the purpose of defending their ways of doing business. Since different manufacturers in the cosmetic industry promote their goods in widely divergent ways due to the use of many different channels of distribution, widely divergent views on what is right and what is wrong were presented to the Commission. How the Commission can reconcile these various viewpoints so that all these manufacturers using widely different methods of distribution can stay in business and grow is a problem for the Commission to solve if it wants to issue rules for the cosmetic industry.

Most of the laws which the Commission is enforcing are relatively simple in their application to the cosmetic industry and there can be little argument regarding rules based upon them. However, the Robinson-Patman Act, which amends Section 2 of the Clayton Act is a most ambiguous law, and it is in the attempt to draft rules based on the application of this law to the practices of the cosmetic industry that practically all of the difficulty arises. But this law is so ambiguous that we fail to see how anyone in his right mind would consent to bound to a set of rules drafted by the Commission to interpret this Act. Surely the provisions of this act must be adjudicated by a court of law before any manufacturer should consent to be bound by any rule laid down by the Commission. Brilliant lawyers and others differ over the interpretation of this law, so no one can accept the Commission's interpretation of it as final and binding.

If rules are finally issued for the cosmetic industry, it is quite likely that some manufacturers will refuse to be bound by them in certain respects, thus inviting prosecution. This will lead to prosecution and to eventual adjudication of the enforcibility of the rules covering the points at issue. As a matter of fact, such action on the part of some of our leading manufacturers would be helpful since it would set the eventual pattern for the rest of the industry. However, the legal division of the Federal Trade Commission is not one to be stopped by a single decision. Thus if a certain case went against them, they might search around for another instance in which the issue could be again joined in the hopes that the result might be different.

There are many members of the industry who are of the opinion that once the Commission has promulgated a set of rules, all they have to do is follow this set of rules and they will stay out of trouble. This is far from the fact for the reason that no set of rules can cover every possible scheme that the mind of man is capable of producing. It might be well for members of the cosmetic industry to consider carefully how the Commission arrives at the final draft of rules. After the division of the Commission which is charged with the development of rules for various industries is anxious to produce rules for as many industries as possible. This gives a good record and makes the division important. Therefore, this division is constantly looking for industries which have no rules, no matter how insignificant the industry might be. The division obtains information on an industry and then tries to arrange with the leaders of the industry, or with a trade association in the

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Supervision — Office and Field

By RICHARD A. WAGNER*

SUPERVISION may be divided into two phases: 1. Office supervision; 2. Field supervision. Let us first consider supervision from the office. A major problem of this phase is daily reports. A salesman selling the tangible takes great pride in sending in a large order or several orders that would constitute a very productive day's work. Likewise, a detailman selling the intangible takes great pride in sending in a daily report if that report permits him to give full information on the performance of his day's work.

Daily reports should not only include the names and addresses of physicians contacted, but also which products were detailed, which samples were left and most important, the physician's reception or reaction to each detailed product and the physician's voluntary comments on the company's product or competitive product. If the report sheet is properly organized, the representative can enter all of this information in 15 or 20 minutes at the close of the day. In return, Management should give each daily report careful study and make good use of the information it contains. The representative wants recognition for doing a marvelous piece of work and evident lack of appreciation only adds to his sense of frustration and futility.

A very simple method of demonstrating to the representative that Management considers daily reports the eyes and ears of the organization is to recapitulate pertinent comments once a month. The representative's name accompanies each comment to make certain that he is given credit for his alertness and thoughtfulness in reporting such comments. These monthly bulletins can be sent to the Medical, Research, Market Research and Advertising Departments as well as members of top Management. They can also be sent to the supervisors so that they can review the memo with each representative. When the representative sees that his comments with his name are broadcast throughout the organization, his morale will go up ten points.

Another method of demonstrating Management's consideration of daily reports is to send each representative a monthly analysis of his detailing activities. This is a statistical analysis showing the number of physician calls made that month, his daily average of physician calls, the number of hospital contacts and hospital details, the number of wholesale and retail drug contacts. In addition, it lists the number of details made on each of the detailed products. It can also give the number of repeat calls made on his physicians for that year so that the representative will know how many doctors he is seeing 4 times a year, 6 times a year or 8 times a year—whatever his schedule is supposed to be. Attached to each analysis should be a letter giving praise where praise is due and suggesting methods of improvement where weaknesses exist. Another major problem of office supervision is correspondence. A salesman is expected to be prompt with his correspondence with his office, to cover one subject at a time and to use clear and concise language. Yet too often the answers he gets are too late to be of value, cover a multitude of subjects or are too involved to be clearly understood or helpful. He is expected to be honest and truthful in all his dealings, but he gets bulletins and letters telling about results in other territories or exploits of other salesmen in which it is obvious that the truth has been carelessly handled.

In our home office we would think it rude indeed if our questions asked of the man at the next desk were ignored. In fairness we should always think of the salesman as occupying a desk next to us and his every request should be considered as attentatively as though it came from our nearest neighbor. Lack of attention and indifference on the part of top Management towards a representative's letters is demoralizing and like cancer is slow death to a salesman. Frequently so much damage has been done before perceptible symptoms appear that it is too late to effect a cure.

There are other methods of making a representative feel that he is an important member of the organization and not just a pin on the sales map. Sending the man a brief letter before he goes on vacation with the hope that he has a good, enjoyable rest. Birthday cards sent to representatives are greatly appreciated. Recognize events that occur within the representative's family such as births, securing a new home, new automobile, sickness in his family, etc. All of these may seem trivial to you, but to the men in the field, they are extremely important. Once again a salesman wants recognition, appreciation and respect from Management. A salesman is an expensive member of any staff. If we are willing to spend money to pay salesmen's salaries, then we should be willing, if we are good business men, to support those salesmen at the home office.

Now let us consider the more important type of supervision—field supervision. The morale of any

*Manager, Professional Service Department, Smith, Kline & French Laboratories. Presented at A.P.M.A. Meeting.

employee depends upon his relationship with his immediate superior. Psychologists tell us that people work for things other than money. In fact, to a salesman public recognition of a job well done, the availability of his immediate superior's time for consultation, the ready work of encouragement and council often mean more than a bonus check.

One of the most pathetic sights in selling is the salesman who is slipping because no one ever bothers to contact him. Orders, plans, programs, quotas come from the home office in a bewildering stream, but no one ever shows the field man how to apply them. Any executive can say do this and this, but adequate supervision requires personal contact to show the representative how it can be done most effectively. I've heard representatives say that they have not seen their supervisors nor anyone from the home office for a year, yes, even two years. Why? Because the supervisor has 25 or 30 representatives in his division and all of his time is given to the training and supervision of the newer men.

Who is the representative you see wasting a morning loafing around the wholesaler's, killing time drinking

Supervision can make or break a sales force. Mr. Wagner tells in detail the supervisory activities which are essential to getting the most out of a sales force in the pharmaceutical industry.

coca colas or standing on the street corner smoking cigarettes during the afternoon when every minute is so valuable because of the limited hours during which physicians can be seen? He is the representative who has been in the territory three, five, ten years or more. He must feel that as long as no one bothers to contact him he is doing a good job and can afford to take it easy. No wonder so many good salesman go to seed.

Each supervisor should be given no more than 15 representatives. With a division of 10 to 15 men, the supervisor can give a two-day contact to each man every six to eight weeks. In adidtion to giving the representative the feeling of importance, recognition, appreciation, and respect, effective supervision must release, mobilize and motivate the human energies inherent in the man. It must show the representative how his work can be more effective.

I am sure many of us can remember that whenever our supervisor accompanied us in the doctor's office, the physician was never as responsive as when we called on him alone. He did not ask questions about the product, in fact, it was like detailing a sphinx. The same thing is true today, even to a greater degree. It is true that the supervisor can observe the representative's office finesse and detailing technique during his contact, but he cannot expect to get a true picture of the representative's capabilities by listening to him detail in the doctor's office. Perhaps the foremost problem in supervision is how to determine a detailman's effectiveness particularly in cases of straight detailing where no orders are taken.

We spend much time and money in making surveys evaluating market potentialities of new products, readership of advertising and many other important phases involved in our industry. Then why not make surveys to get an honest and fair evaluation of the representatives' activities? After all, aren't we more interested in how he operates while working alone than how he operates when working with the supervisor? These surveys can determine the physician's knowledge and use of the product the representative detailed two, three or four weeks previous. The surveys can inform us as to what degree the physician was sold on the product, whether or not he has used it and if he has used it, did he use the correct treatment procedure. Does the physician know the indications and contraindications of the detailed product? In short, the survey can give us the true picture on how effective the representative was in detailing the product, and any weaknesses that may exist.

The survey report should be reviewed with the representative and the weak spots pointed out. With this knowledge the supervisor can demonstrate how the short-comings can be corrected, thereby improving the effectiveness of his representative. These surveys are particularly useful in territories where there are several representatives who are given joint credit for purchases in their trading area. It assures each representative within the area that his compensation and progress with his company depends entirely upon his own efforts and not upon the sales produced by the entire group of representatives working in that area. Since no two human beings are identical in capabilities, the survey brings out the evaluation of each man and if he is the top-flight salesman he things he is, Management will be aware of it.

Sales organizations are actually becoming organizations. No more will they be just an aggregation of prima donnas—each one selling in his own way—always the easiest way, but not always the best way. To insure uniformity within the entire sales group, a detail program can be issued giving the products to be detailed during the eight, ten or twelve weeks' period required to cover the territory. This program should include a patterned sales presentation to be used on each product.

During the second week of the detail program, a one-day conference for the supervisor and his ten or fifteen representatives can be held. By this time the representatives will have had one week's experience in using the new details and they can be discussed by the group. Individual representatives can give detail demonstrations before their fellow representatives to demonstrate how effectively the patterned detail can be presented. These conferences can also iron out any

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QUATERNARY AMMONIUM COM

By HARRY HILFER

QUATERNARY ammonium compounds are not new, but their application to the solution of industrial problems have been greatly exploited only during the past few years. The quaternary nitrogen is capable of a large number of reactions and it is therefore possible to use it as a basis in the synthesis of surface active agents, alkali bases as mild soap formers, and as bactericidal agents. However, the primary use of these compounds seems to be, so far, as germicidal agents, and they are rapidly coming into greater use as such agents in cosmetics, since there are so many applications for a mild germicide in these preparations.

Deodorants, which depend for their efficacy on their ability to keep bacteria from forming odoriferous degradation products when in contact with perspiration, are perhaps the best applications for quaternaries with germicidal properties. Many of the quaternaries are capable by their presence of either killing the offending bacteria or arresting their ability as odor producing agencies. They are, therefore, becoming an ever increasing factor in this large field. Their use is not limited to any one type of product, since they are capable of use in anti-perspirants as well as the purely deodorant preparations.

Anti-perspirant creams, which depend on aluminum salts as a means of preventing perspiration, also should have a germicidal agent present to prevent the bacterial cycle from taking place in the short span before the sweat glands are blocked. Quaternaries are being used to serve this function. They serve as the only active deodorant in preparations such ad deodorant colognes and preparations having no anti-perspirant activity.

The bactericidal activity of some quaternaries is now being utilized in such preparations as dandruff removers. The cause of dandruff is still somewhat obscure. The prevalent opinion seems to be that there are several different types and that their causes are of different origins. In conjunction with some types of dandruff, there has been found the so called "bottle" bacillus, but whether or not this organism is the cause has not been conclusively proven. The presence of the "bottle" bacillus in cases of dandruff may be due to the fact that the "scaling" scalp gives it a convenient place to lodge. There is, however, some evidence that it contributes to the severity of the condition of the scalp and certainly that its presence is not desirable.

Quaternaries are used in these preparations to kill the "bottle" bacillus and there is no doubt that such treatment eases the ailment if it does not completely cure the condition.

Quaternaries could be so synthesized so as to combine the germicidal properties with surface active properties. It would therefore be possible to form an emulsion containing some oil so that the preparation may become a hair grooming aid as well as a dandruff remover; or in anti-perspirant creams, the quaternary could be the emulsifier as well as the deodorant.

Another property of quaternaries which is being utilized is their substantivity to proteins. They are in common use as woolen softeners, since they are capable of attaching themselves to such bodies and form an all but invisible film which would tend to remove any hint of frizziness. This property is now utilized in hair rinse preparations, whose function it is to detract from frizziness as a result of a permanent wave or shampoo. Since a low pH medium is desirable for hair rinses, and the fact that they are more stable at a low pH makes them better able to perform this

As far as I know the only conclusive tests are those conducted in vivo, and, with the controls being so difficult to maintain, the results may vary. For those who are able to do so, I would recommend that the product be tested under methods of actual use, and, if a large enough number of subjects is used, the average would be a good indication of efficiency. This applies to substantive as well as bactericidal properties.

Quaternaries with a long chained radical in their molecule are much more likely to be affected by additions of other substances than are the lower molecular weight homologies. However these long chained substances have the most interesting surface tension reducing functions. It is readily apparent that the incompatability of such a substance with a soap is due to the formation of a high molecular weight complex which is insoluble and precipitates out of the system. However, the formation of such a complex would not be expected from an addition of a fatty acid to a quaternary chloride at an acid pH. I have observed however, in certain cases, that such an addition causes a marked drop in the pH which would indicate that

UM COMPOUNDS IN COSMETICS

function. The use of a quaternary rinse therefore would serve to remove any calcium soap deposit as well as a substantive function.

Quaternaries are all cation active derivatives and the presence of any substantial quantity of anion active substances would be incompatible with them. It therefore beomes important to check carefully the individual idiocyncracies of the compounds being studied to determine how they could best be used. There is still a great diversity of opinion as to their effectiveness as bactericides in vivo and certainly the conditions to which they are subjected will have a bearing on their efficiency. It cannot be assumed, for example, that if a quaternary at a 0.1 per cent concentration has a well defined phenol coefficient when dissolved in an alcohol and water solution and tested on an agar plate under standardized conditions, that this same phenol co-efficient will hold true on application to the skin. Certainly it is recognized that the skin proteins themselves may have a bearing on the quaternary's activity. Nor can it be assumed that the addition of another substance, such as a perfume oil, will have no effect on the quaternary. These new variables will have to be checked.

free HCl is released. Strangely enough, the resultant emulsion, instead of breaking because of a supposed destruction of the emulsifying agent, serves to be more stable than previously. The pH can then be raised to the proper level by the use of a buffer.

In measuring the pH of systems in which quaternaries are used I have also found, and the idea is now fairly prevalent, that the usual potentiometer equipped with a glass electrode does not give the true pH. This is ascribed by some workers in the field to the fact that the quaternary coats the electrode and therefore does not permit free passage of the hydrogen ions through it. Determination of pH with an indicator gives much more consistent results, and, it is thought, truer results.

Quaternaries, under any conditions, represent a comparatively new field for study by cosmetic chemists, because of the large number of properties it is possible for them to possess. However, these properties must be carefully checked against other materials being used in the same systems to be sure that they are not destroyed. Aside from their germicidal properties, their substantive properties should be more thoroughly investigated for possible use in cosmetics.

PRESSURE PROPELLED PRODUCTS

By MILTON A. LESSER

PEOPLE talk about the "push-button era" as though it were something in the distant future. Actually we are now living in such a period. Newest evidence to back up this view is the increasing acceptance and growing popularity of pressure propelled products being sold in low pressure aerosol dispensers. Thus, by pressing a button on the top of a can it is possible to create a mist or aerosol that will kill insects, deodorize the atmosphere, sterilize the air of a sickroom, apply a film of suntan oil on the skin and provide a host of other services. The simplicity, ease and convenience of these low pressure propelled products has focussed attention on the potentialities of such items in the drug and cosmetic fields.

As remarked by the editor of a leading industrial publication,[1] "If recent observations are a criterion, the aerosol method for the application and use of innumerable products is due for wide expansion over the next few years. Each new application of the aerosol principle seems to suggest several others." In line with this statement is the estimate that some seven million aerosol "bombs" were sold in 1948. It is predicted that this figure may reach 21 million in 1949. Such phenomenal expansion is explained in Stoddard's[2] remark that at their best, low pressure aerosols combine a maximum of convenience with satisfactory effectiveness and reasonable economy. Obviously such a combination makes an irresistible appeal to the American buying public.

Before going further it might be well to stop and explain what is meant by an aerosol. Without getting too technical it can be said that an aerosol is a colloidal system consisting of extremely fine particles dispersed in a gas. Liquid particles produce a fog, while solid particles form a smoke.[3] Carrying the explanation a step further, it is possible to make a classification based on the methods of producing aerosols. As noted by Dietz and Shepherd,[4] this would yield three types; namely—thermal aerosols, mechanical aerosols, and the dynamic or liquefied-gas aerosols. It is the liquefied gas or "packaged power" type of product which is now getting so much attention.

Despite its apparent modernity, the principle of the aerosol, as such, is not new. For example, the theoretical aspects of aerosols, as well as their practical implications, were reviewed in a report[5] published in 1924. Of course considerable data on the various phases of aerosol production and application have been assembled since then, particularly during the war years. Also going back many years is the idea of using volatile liquids as the pressure propellents. As was brought out in a recent court battle,[6] the principles of the "modern" aerosol spray devices go back to 1899 when a patent was granted to Helbing.[7] Of pertinent interest are the products described in Gebauer's[8] patent of 1902.

The important result of this litigation—one that, if sustained on appeal, will no doubt have a great influence on the future of the low pressure aerosol dispenser—was the invalidation of the Rotheim patents[9] of 1933 and 1934. The wealth of information supplied by these patents is at once evident to anyone reading the specifications.

There is general agreement that the current phase of aerosol development began with wartime investigation on insecticidal "bombs" for use by the armed forces. Some of the major results of these studies are embodied in the patent granted to Goodhue and Sullivan[10] and assigned to the Secretary of Agriculture for licensing to aerosol manufacturers. With the cooperation of various government agencies and private industry products were made that met many rigid tests. Moreover, as explained by Goodhue,[11] the extensive use by the armed forces popularized the aerosol method of applying in-

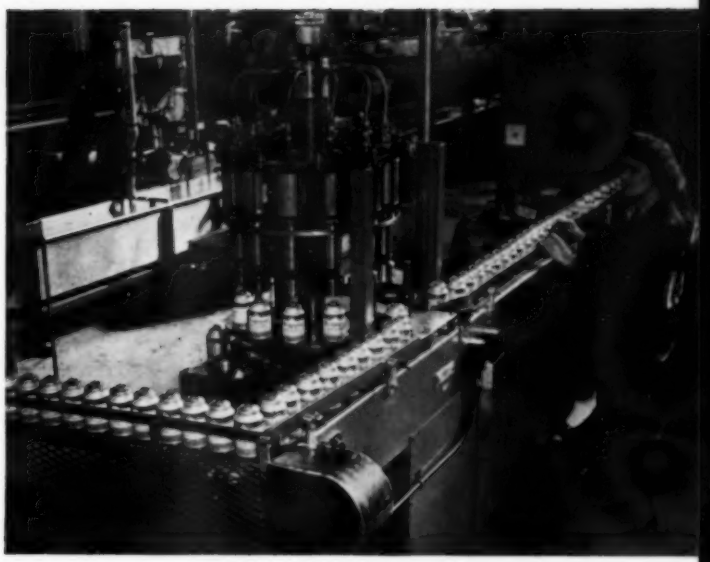
secticides in a far shorter time than would have been possible under ordinary circumstances. General acceptance by service men was soon reflected in the civilian market.

The wartime insecticidal aerosol bombs, however, were of the high pressure type, of heavy construction and quite expensive. When their novelty had worn off, manufacturers sought ways to reduce costs. For the most part efforts were directed toward reducing the cost of the container, which was often higher than that of the contents.[13] This, in turn, necessitated changes in the pressure of the propellents, adjustments in the valves, meeting legal requirements and solving various other problems. That a solution to most of these problems was found, at least with respect to insecticidal

aerosol dispensers, is evident in tentative standards for these products.[13]

While some manufacturers concentrated on insecticidal products, others discovered that the new dispensing technic could be applied to various other types of products.[14] The more they investigated these new uses the greater seemed the potentialities of the low pressure aerosol principle. Indeed it is said[15] that the developments in this field during the past four years have fulfilled, and frequently exceeded, almost all of the early predictions. Even so, it seems that only the surface of application and sales has been scratched.

As was recently remarked by Burt,[16] packaging specialists expect the aerosol type products to invade the pharmaceutical, cosmetic and novelty fields during the next two years. To bolster this view they cite the fact that the public has already shown that it is willing to spend money for such diverse items as air conditioners,



plastic sprays, whipped cream dispensers, moth proofers, fire extinguishers, and others. This type of container is being readied to dispense materials like fungicides, suntan lotions, antiseptics, colognes and perfumes, under-arm deodorants, throat sprays, shampoos, hair lacquers, and dressings for wounds and burns. Most such products have already passed laboratory tests quite successfully. Others already are within practical range.

With the growing interest in the possibilities of pressure propelled products, there is a concurrent desire to learn more about the basic elements concerned in their manufacture. However, as indicated in one comprehensive report,[17] each pressure propelled product offers a different problem which can be solved only by the proper consideration of certain factors. These are as follows: (a) State or condition of the dispersed product, e.g. a fine mist or wet spray, (b) formulation of the packaged product, (c) valve design and construction which will produce the desired dispersion, (d) compressed gas or propellent with proper vapor pressures and solubilities, and (e) the container, which should be chemically resistant to the product and at the same time be capable of withstanding the pressures encountered during its normal life.

As already indicated, the container was a primary consideration in the transition from the high pressure bomb to the low or moderate pressure package. It was felt that, if a cheaper, light-weight, yet safe container could be constructed, the aerosol dispensers would come within the purchasing range of a large part of the buying public. In brief, the problem consisted of replacing a container capable of safely withstanding a high pressure of about 70 pounds per square inch (p.s.i.) at 70°F. with packagings suitable for products exerting 25 p.s.i. (low pressure) and 40 p.s.i. (moderate pressure).

It is interesting that the solution to this problem was based on the packaging industry's experience with the

beer can, which was also designed to hold a liquid product that exerted considerable pressure.[18] At present two types of containers are in general use. One looks a good deal like the familiar utilitarian beer can, the other is a more streamlined, rather graceful can.

The first, actually adapted from the regular side-seam beer can, has concave ends for greater strength and to depress the soldered-in valve below the top rim for safe stacking.[19] It is made from tin plate by high speed can machinery and is furnished to aerosol manufacturers complete with a dispensing valve and nozzle. The bottom is left open for filling. As noted by Goodhue,[12] a better label can be provided with this type of can because it can be lithographed while flat.

The second type is a drawn steel container without any side-seam. In addition, the shape of the top of this kind of dispenser has been modified to obviate the similarity to a beer can. A further development are cans that are suitably coated internally and also lithographed with the aerosol manufacturer's label. The bottom is seamed on at the can factory, but an opening is left at the top. While a special type of closure is provided, the dispersing valve and nozzle are left to the manufacturer. A more recent innovation, and exclusive design of one of the new-comers to the field, is a polished aluminum seamless dispenser. In addition to its lightness, the container is only two and one-half inches in diameter so that it fits snugly into the user's hand. Other improvements are included in this novel aerosol dispenser.[20]

It should be noted that with these several types of aerosol dispensers, a long tube serves to exhaust the container's contents. This tube extends from the valve to almost the bottom of the can.

Changes in the container and in the pressure of the propellents also brought up the needs for adjustments in the valves and nozzles. Taking the new conditions and requirements into consideration, research men were able to modify the valves so that they would produce ultra-fine particles comparable to those formed by the high pressure bombs. Such aerosols are capable of permeating and remaining suspended for fairly long periods in the atmosphere of rooms and other enclosed spaces. Such valves are now used on dispensers of insecticides, air deodorizers and air sterilizers.

Further work, which has greatly extended the range of utility of pressure propelled products, led to the development of another type of valve. This permitted the projection of a coarser, wetter spray which forms a smooth coating over nearby surfaces. Such valves have adapted aerosols for lotions, lacquers, antiseptics and various other products. Other variations in the valves permitted the dispensing of a lather of whipped cream or similar substance.[16]

Dependable valves can now be produced in quantity and, according to Goodhue,[12] no trouble should be encountered if a wise choice of propellent and auxiliary solvent (if required) is made. In the opinion of this authority the selection of a propellent for low pressure aerosols not only requires the same considerations as for higher pressures, but some additional ones as well. He stresses that a propellent, whether of a single material or combination of agents, must be non-inflammable, nontoxic and nonirritating, nearly odorless, chemically inert, and be a fair solvent. The vapor pressure must be high enough to expel the liquid forcibly from the container and cause it to boil violently at ordinary atmospheric temperature and pressure. A low heat of vaporization favors rapid boiling, which gives a good dispersion.

Goodhue notes that most of the mechanical energy required to form an aerosol from a liquefied-gas solution is drawn from the atmosphere in the form of heat to make the propellent boil rapidly. He believes that other properties, such as density, viscosity and surface tension, can be ignored in a propellent which meets the major requirement. From his studies, it appears that a propellent composed of a high and low pressure liquefied gas gives a better dispersion than one pure liquid at the same pressure.

The selection of propellents is markedly influenced by the safety regulations of the Interstate Commerce Commission.[18,21] The earlier rulings did not permit a pressure higher than 25 pounds p.s.i. at 70°F. in the tin can type of container, so in the transition stage attempts were made to produce aerosols at this low pressure. It was not long, however, before it was generally apparent that for all-around usefulness the best pressure appeared to lie in the range of about 40 p.s.i. When it was demonstrated that such a pressure would greatly increase aerosol efficiency and could be used safely in the tin can type of container, permission was granted by the I. C. C. to use pressures as high as 40 pounds gage (55 pounds per square inch absolute) at 70°F.[13,22] The ruling stipulated that these containers could be filled only with nontoxic and noninflammable materials. It was also required that each filled container must be heated to 130°F. without showing evidence of leakage, distortion or other defect. Such testing is generally done under hot water before shipping.

A number of propellents are now being used in the production of pressure propelled products. These include the "Freons," the "Genetrons," methylene chloride, propane, butane and pentane. In special formulations, carbon dioxide and nitrous oxide serve as the propellents. The first two types, both groups comprising organic fluorine compounds, are the most important of the liquefied-gas propellents employed in the moderate and low pressure aerosol dispensers. Products of these types, as recommended for aerosol purposes, are nontoxic and noninflammable and otherwise meet the requirements cited above.

Several Freons are available from Kinetic Chemicals, Wilmington, Del. However, Freon-11 (trichlorofluoromethane) and Freon-12 (dichlorodifluoromethane) are the most used; generally being employed in various combinations to give the desired pressures. For example, a mixture containing 54 per cent of Freon-12

(*Continued on page 470*)

OPERATION PHARMACY

By FREDERICK D. LASCOFF*

FOR years pharmacists have criticized manufacturers for putting out proprietary specialties, thereby encroaching on their prescription departments. As modern retailers, we should be realistic. For one thing, there is little we can do about it. Thank God, this is America and freedom of enterprise is still part of the American way of life.

But let us go further. Pharmaceutical manufacturers, through their research laboratories, have given us Insulin, the vitamins, the sulfa drugs, Penicillin, Streptomycin, Aureomycin and other antibiotics, the antihistamines and countless other tools to combat disease which, we must confess, could not have been developed in any one of our prescription departments.

They, the pharmaceutical manufacturers, through our prescription departments, have made them available to the public. Pharmacy and pharmacists have gained prestige through the efforts of these manufacturers. At every crossroad throughout the country, countless lives have been saved as a result of this combined effort by manufacturers and retail pharmacists.

But . . . we must always remember that, while I am praising the pharmaceutical manufacturer who originates scientific products and the retailer who makes them readily available, the "copying" or "imitating" pharmaceutical specialty manufacturer is guilty of causing duplicate and increasingly large inventories. This is an evil which accomplishes nothing but increased cost of medical care without making a genuine contribution to the physician's armamentarium.

Another parasite is the pharmaceutical manufacturer who simply combines a few old drugs, which are often given chemical names in order to confuse, and comes up with a product which could easily be prepared in the pharmacy.

This brings me to a problem of vital interest and of growing concern to many pharmacists throughout the country. More and more physicians and the general public are turning to the pharmacist for information regarding the newer drugs. Frequently the science sections particularly of the Sunday papers, and publications such as Time, Life, Reader's Digest and others carry a feature article on a drug which either has not been released by the F. D. A. or which, for some other reason, is not commercially available.

You naturally will ask yourself "How is it possible to know of these developments in science in advance of the physician? How is it possible for the pharmacist to read or even scan all the medical journals or even the dozens of newspaper articles which come to the attention of his patrons." There is no simple answer. I have discussed this problem with pharmacists, pharmaceutical educators, editors and some of the top executives of pharmaceutical houses. I have also discussed it with officials of the F. D. A. The following suggestions are the result of these conferences:

1. Watch the scientific sections of the drug journals.
2. Ask detail men to keep you abreast of new developments.
3. Watch the health column in your local newspaper and the medical and science articles in Time, Life, Reader's Digest and so forth.
4. Try to find time for at least a quick scanning of the Journal of the American Medical Association and your state medical journals, even if you don't have time to read more than a summary of the articles.

After obtaining information on a new drug it is well to file it away alphabetically for future reference, using your own method so that you can quickly put your hands on it if you have an inquiry.

As new drugs are released and delivered to you, don't put them on the shelf immediately but place them in a conspicuous spot, with the literature, where your pharmacists and visiting physicians may see and study them.

Quick availability of dispensing containers and the sensible trend of some manufacturers to package their products in typical prescription bottles rather than fancy designed ones are useful. Manufacturers could also create good will with the pharmacist by using labels which can be removed with greater ease.

This brings me to a problem which the pharmacist faces daily and which should not be too difficult to solve; the lack of uniformity in price lists and catalogues. This is one of the most chaotic situations in our field today. Large sums of money are spent on these catalogues. In many cases they are handsome but show a complete lack of understanding of their ultimate use. For one thing, there should be uniformity of size and make-up as well as style. The ideal catalogue should have:

1. Name of the product, trade name and chemical name.
2. Size of unit.
3. List price, which should be Fair Trade if salable without a prescription.

(Continued on page 483)

*Delivered before N.A.R.D. Meeting, New York, September 20, 1949.

VITAMIN PRODUCT CLAIMS

IN CONSIDERING proper labeling and advertising claims for vitamin preparations, manufacturers must realize first of all that vitamins are considered food substances which correct bodily ills by aiding nutrition. Vitamins should be part of a well-balanced diet, just as are certain types of mineral substances, carbohydrates, proteins and fats. Also it must be appreciated that even though a diet may include the types of food essential to a well-balanced diet, it is possible through improper handling and preparation of these foods to destroy all or a part of the vitamin or mineral content. Therefore, persons in any walk of life might suffer varying degrees of vitamin deficiencies. Regulations of the Food and Drug Administration contain standards for the minimum daily requirements for the average individual of many vitamins and minerals considered essential in normal nutrition.

Many products containing vitamins, or vitamins and minerals are available to the consumer through which he can obtain his daily minimum requirements by taking as directed. These preparations constitute the majority of vitamin and mineral preparations offered for self-medication. These preparations are useful in preventing deficiencies, but in the treatment of deficiencies once they have developed to the state of creating real symptoms. Food and Drug Administration Officials claim that in order for a vitamin preparation to be considered of value in the treatment of vitamin deficiencies, it must contain at least three times the minimum daily maintenance requirements of the particular vitamin in which the patient is deficient. However, most of the severe deficiencies such as beriberi are so serious that the sufferer will be under the care of a physician.

According to the Food and Drug Administration: "The term 'vitamin B-Complex' has no specific meaning and its use is unwise. However, the Administration does not object to the use of the term when applied to a product which furnishes in the recommended daily intake consequential amounts of the vitamins of the B-Complex known to be necessary in human nutrition and demonstrable quantities of all other components of the vitamin B-Complex including those which have not been identified. In other words, considered in the light of the recommended dosage to be consumed, the product should have consequential amounts of thiamine, niacin and riboflavin. Also demonstrable amounts of pantothenic acid, pyridoxine and para-aminobenzoic acid and the other compounds of vitamin B-Complex which have not been identified."

With reference to the so-called gray hair vitamin, the Food and Drug Administration said: "We are reliably informed that competent investigations have been unable to confirm the observations that para-aminobenzoic acid administered will cause restoration of the pigment of gray hair in man." On another occasion the FDA said that if pyridoxine is supplied to the consumer in quantities of perhaps 0.064 milligrams per day, and pantothenic acid in quantities of 0.35 milligrams per day, that these quantities are inconsequential, and that statements in labeling for a product with reference to these ingredients would probably be misleading to the consmer.

Contained in a Notice of Judgment issued as the result of a seizure of a vitamin preparation, are the following significant statement: "Misbranded because designs, devices and statements in the labeling created the false impression that this product contained vitamins A, B_1, C, D, D, and G in consequential amounts, would be effective in preventing colds and infections, in producing healthy nerves, normal growth, good teeth, strong bones and other desirable attributes, whereas it contained no vitamin A or C and only inconsequential amounts of vitamins B_1 and G and would not be effective in producing the claimed results."

Some vitamin preparations include liver in one form or another. However, FDA officials contend that unless the liver substance is present in a quantity and quality sufficient to be effective, the mere inclusion of the word "liver" in the list of ingredients may be misleading.

The Federal Trade Commission included the following interesting statement in the Findings of Facts in a case concerning a vitamin and mineral product: ". . . respondent has represented, directly or by implication, that through the use of its product persons who are weak, emaciated, thin, and underweight can overcome such conditions; that through the use of such product persons who are without shapeliness of form or figure can acquire attractive form and figure and develop well-proportioned bodies; that the use of such product enables persons who are tired and run-down to recover or regain normal health, strength, and vigor; and that persons who by reason of undernourishment or underweight are suffering from such conditions as sour or acid stomach, gas, and indigestion may be relieved of such conditions through the use of respondent's product."

"The ingredients which form the basis for the claims made by respondent for the therapeutic properties of the product are vitamin B_1, iron, iodine, calcium, and phosphorus. Insofar as calcium and phosphorus

are concerned, the expert testimony in the record establishes that there is no relation between a deficiency of these minerals and the conditions for which respondent recommends its product. As for vitamin B_1, iron, and iodine, the amount of these ingredients in the product is wholly insufficient to be of any therapeutic significance. The amount of vitamin B_1 in each tablet is approximately 22 International or USP units. As the directions for use provide for the taking of eighteen tablets per day, this would make the total daily intake of vitamin B_1 396 International units. It is undisputed that where a deficiency of vitamin B_1 exists, the recognized minimum therapeutic dose of vitamin B_1 is 3300 International units per day, continued over such period of time as may be necessary to overcome the deficiency. The amount of vitamin B_1 in respondent's product therefore falls far short of the minimum therapeutic dosage, and such amount is incapable of any therapeutic effect.

"In the case of iron, the content of each tablet is 2.8 milligrams provided in the form of one-fourth grain of iron ammonium citrate, and one day's dosage of eighteen tablets would supply 50.4 milligrams of iron in the form of 4½ grains of iron ammomium citrate. The recognized therapeutic dosage of iron ammonium citrate ranges from 45 to 135 gains per day. The daily dosage of 4½ grains of iron ammonium citrate in respondent's product would be insignificant and without value from a therapeutic standpoint. As for iodine, the evidence establishes that the amount present in respondent's product is wholly insufficient to have any therapeutic value in the treatment of conditions referred to in respondent's advertising.

"Respondent's product is therefore wholly incapable of enabling persons who are weak, emaciated, thin, or underwieght to overcome such conditions. The product is likewise incapable of enabling any individual to develop a well-proportioned body or acquire shapeliness of form or figure. It is ineffectual for overcoming tired or run-down conditions, and its use does not result in the recovery of health, strength, or vigor. The product is likewise incapable of exerting any therapeutic effects upon such conditions as sour or acid stomach, gas, or indigestion.

"It is urged by respondent that its product is a food rather than a drug; that it is a dietary supplement; and that the amounts of certain of the minerals and vitamins provided by the daily dosage of the product equal or exceed the minimum daily requirements of such minerals and vitamins according to standards established by the Food and Drug Administration. The Commission is of the opinion, however, that, assuming this to be true, the fact has no material bearing upon the issues involved in the present proceeding. The standards set up by the Food and Drug Administration presuppose that the individual is in good health and that he is not suffering from a deficiency of any of the minerals or vitamins in question. Respondent's advertisements, on the other hand, are directed to persons who are assumed to be deficient in such minerals or vitamins, and the conclusion is inescapable from the record that where a deficiency exists, the standards set up for minimum daily requirements have no application. In such cases nothing short of the recognized minimum therapeutic dosage of minerals or vitamins is effective. For persons who are in normal health, respondent's product might serve as a dietary supplement and might aid in preventing certain mineral or vitamin deficiencies, but it is wholly incapable of any significant effect where a deficiency already exists."

Manufactures should make note of the fact that the Federal Trade Commission considers larger quantities of vitamin B_1 necessary in the treatment of a deficiency than does the Food and Drug Administration. The requirement for the amount of iron is the same with both agencies. An early FTC stipulations prohibited a manufacturer of a vitamin preparation from claiming that his product would "restore one's digestive and eliminative system to normal, healthy functioning unless such claims are limited to such conditions when due to a deficiency of vitamin B-Complex."

A stipulation prohibited a manufacturer from stating that his product "beneficially affects the processes of digestion except where and to the extent that faulty digestion may be known to be due to an insufficient amount of vitamin B_1;" or "prevents infection or helps build resistance to colds, coughs or other similar infections unless especially limited to those instances in which body resistance has been or is lowered due to an insufficient intake of vitamin A;" or "corrects nervous conditions or may be of value for nervousness except where and to the extent that such nervousness may be due to the lack of vitamin B_1 in the diet;" or "beautify the user."

A more recent FTC stipulation prohibits a manufacturer from claiming that his product "contains twelve or more vitamins essential to human nutrition and that use of the product will correct or have any beneficial effect upon headaches, baldness, gray hair, or deafness; have any beneficial effect on conditions such as so-called "middle-age ills," tiring easily, lack of stamina, underweight, nervousness or irritability, except to the extent that the product may beneficially influence such conditons when due to a mild deficiency of such vitamins as _____ supplies; have any beneficial effects upon dyspepsia without expressly limiting such claims to those cases due to a vitamin B_1 deficiency; prevent colds or minimize their severity or duraction, or make the user healthy; correct, overcome or prevent vitamin deficiency diseases generally, or overcome, correct or prevent any vitamin deficiency diseases unless limited to those known to be due to a lack of whatever vitamins that may be supplied in therapeutic quantities by _____ when used in accordance with the directions; beneficially influence symptoms such as fatigue or lack of ability to concentrate except to the extent that the preparation may do so when such symptoms are due to a mild deficiency of the vitamins supplied by the product;

(*Continued on page 483*)

In Masculine Items, For Instance

THE CLAY-COATED BOX BOARD THAT'S CUSTOM-MADE FOR EVERY ORDER

Achieve Packaging Perfection with Ridgelo . . .

Cleaner Printing, Brighter Colors, Glossier Finish

Good merchandisers recognize the value of smart styling in every detail! That's why Ridgelo cartons play such an important part in promoting the sales of leading lines of belts, suspenders, tobacco, liquors and many other masculine needs . . . for Ridgelo turns eye-appeal into buy-appeal!

Add a big plus in sales to *your* product with Ridgelo clay-coated boxboard, and make the most of good package design. Every order is custom-made, catered to your individual printing and filling requirements. Packaging by Ridgelo conveys the prestige of your name, strengthens product identification!

Ridgelo's amazing uniformity protects you from variation in package appearance, even in repeat orders . . . and its brighter, smoother surface takes printing wonderfully. Color-true, light-resistant pigments keep your package fresh and new looking.

When you choose Ridgelo, you get real *quality* . . . the kind that sends production volume *up* and production costs *down*. Step up the appearance of your packages, step up the sales of your product, with this finer box board!

MADE AT RIDGEFIELD, N.J.
BY LOWE PAPER COMPANY

REPRESENTATIVES

H. B. Royce, Detroit • Philip Rudolph & Sons, Inc., Philadelphia
A. E. Kellogg, St. Louis • Norman A. Buist, Los Angeles

PACKAGING AND SELLING

GIFT PACKAGES

It would seem probable that Christmas packaging by perfume and cosmetic manufacturers will this year reach a low ebb for a long period, certainly extending back over 10 years. The reason for this lack of a wide variety of Christmas packages for perfumes and cosmetics is that a strong defeatist attitude has been built up throughout the entire industry and all its branches.

Christmas packaging reached its peak in the Christmas season of 1946. That is the year when cosmetics first began to sense the end of the war-time boom, and returned goods that year were extremely severe because both the retailer and the manufacturer grossly over-estimated the consumer Christmas demand.

For two or three years cosmetic and perfume people had been having the gift market very much to themselves. This, combined with plenty of flush war-time money, expanded the sale of gift sets, particularly in the higher price ranges, far beyond the traditional level which had always been shown in a comparison with the volume of disposable consumer income. Many manufacturers continued their optimism into the fall of 1947 although there was in this year a distinct note of conservatism throughout the industry. Christmas package sales fell substantially below previous years, and even more than that, the real volume in gift buying declined substantially in the amount of the unit dollar purchase.

During this year there has been a widespread retail reaction against the Christmas package. Many department store buyers, either on their own initiative or influenced by the opinion of higher executives, have stated forcibly that they were drastically reducing the number of Christmas packages that they would stock and that they would offer very few packages retailing for more than $5.00.

The effect of this retail attitude has been to make most manufacturers supercautious. Some practically abandoned Christmas packages. The majority are simply dressing up standard packages, assembling them in sets in inexpensive cartons or other outer containers and are assuming the cost of this outer container so that the retailer can disassemble after Christmas and put the stock products on sale without any expense involved to the retailer.

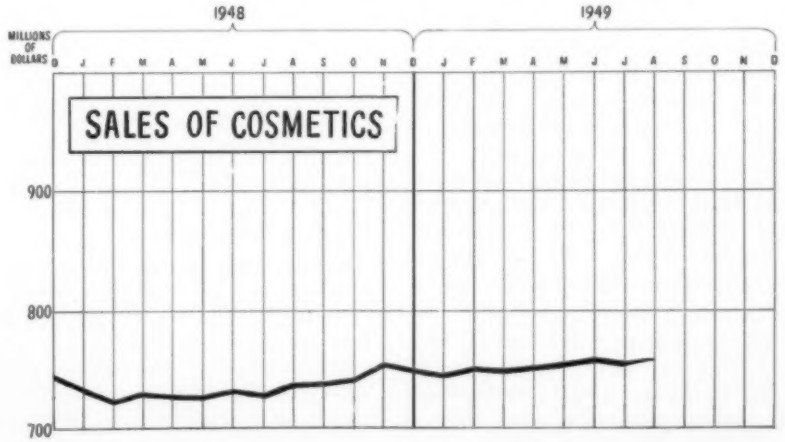
A few cosmetic companies are proceeding with the same imaginative courage in design and in quantity that was so characteristic of the industry before the war. It is notable that in most cases these companies have been outstandingly vigorous in their promotional activities throughout the year and are the ones that have been showing progress and in some cases increasing sales over last year.

There now seems to be growing confidence that this Christmas season will be substantially more active than any one anticipated during the spring months. In addition it's probable that the perfume and cosmetic business has about completed its period of reconstruction and the weakest of war-time companies have largely been eliminated. The great inventories in retail and manufacturers' hands which hung over the industry is nearing an end, and the products of the industry have again come into a normal balance with many other kinds of merchandise that are normally accepted as gifts.

This defeatist attitude of the industry toward gift packaging will pass, simply because it must pass in order to maintain the traditional volume of this industry. Any important retailer who is maintaining a good position in perfume and cosmetic sales and who is seeking a clientele for these products will carry a full and lavish dislay of Christmas gift packages or he will not maintain his position as a cosmetic retailer. In the same way a perfume and cosmetic manufacturer, particularly of those products that are not low-price utilities, will have a full range of gift packages or he will slip out of any important place among the ranking members of the industry.

The reason for this is that perfumes and cosmetics have historically been established as a preferred gift, and a heavy, substantial part of the industry volume has always come, and must come, from gifts. The industry has not found a way, either among manufacturers or retailers, to avoid the bulking up of volume reaching as high as 60 per cent of the entire year's business in the last three months of the year. This of course does not apply, as we said before, to the low price, utility products. It applies in an extreme degree to the higher priced perfumes where from 70 per cent to 80

Retail sales of cosmetics for the twelve months ended with August 1949 totaled $757,220,000. This compares with $754,955,000 for the twelve months ended with July 1949 and with $737,272,000 for the twelve months ended with August 1948.



per cent of the business can be credited to gift merchandise.

Instead of a defeatist attitude toward the gift package, this industry, manufacturers and retailers alike, should consider it one of the strongest assets of the business. Certainly if perfumes and cosmetics had no gift business at all and were not recognized as gift merchandise, the best brains of the industry would be devoted to thinking out some way in which they could get a share of this enormous plus business. Since it is an accepted fact that perfumes and cosmetics have a preferred position in the public mind as gift merchandise, the industry is more and more certain to regain, and quickly regain, the enthusiasm, the originality and the brilliance which distinguished gift packaging in this industry before the war.

We think there is little room for debate in the statement that the future hope of expanding sales of the cosmetic and perfume business beyond the normal ratio, which will come to the industry from increasing population or increasing consumer income, is through the gift market. Not only in Christmas, which is the great sales peak period of the year, but in many other gift occasions that come throughout the year, such as birthdays, weddings, graduations and returning to school, Easter, Mother's Day and Father's Day, hospital gifts and many others in these recurring gift opportunities, is the opportunity for many millions of dollars of added revenue to the industry.

Defeatism, with a favorable climate can turn with surprising speed to ebullient optimism. We think that this kind of optimism is long over-due, and we think also that a return of the industry's flair for gift packaging and gift promotions is a plain, practical necessity for a healthy industry.

Watch Retail Sales

Everybody is delighted with the deep note of optimism which is developing in business. This optimism is most apparent among those business men whose products suffered most severely during the recent deflation, recession, readjustment, or whatever anyone wants to call it.

It is among those people who sell merchandise to retail stores that this change is most evident, and it is to these people in their new-found happiness that a word of caution may be unpopular and is, therefore, offered with some hesitation.

It is a fact that retail buying has been gathering momentum and in some departments, notably branches of the textile trade, shows a tendency to run away. Reports from the field indicate that the larger retail units, particularly the large department stores, are buying actively for future deliveries, and this is reversing a trend where these stores have been the super-slow and cautious buyers, and the smaller stores in medium sized cities, which have maintained a relatively steady program of purchasing, are beginning to slow up.

Actually the truth is that these smaller stores were never harassed by a dangerous, top-heavy inventory, but they proceeded on a normal, inventory basis and are continuing this policy now. It is only because the large stores have completed the swing of the pendulum from too heavy an inventory to too low an inventory and are trying to adjust their stock of goods for an expected improvement in retail business this fall that the contrast seems so unfavorable for the smaller retailer.

The actual word of caution is this. There is no sign, as yet, that over-the-counter sales are keeping pace with larger increased, retail buying. Retailers have at last realized that if they are going to make this year's figures come within shouting distance of last year's by doing a good fall business, they must take courageous action and have goods in their stores and upon their counters. Obviously when the expected fall rush of consumer buying starts, the store must have merchandise if it is going to do business. They must anticipate and buy in advance, and that is just what they are doing.

This whole rush of new business really means that retailers in general expect consumer purchasing to pick up this fall and to be good. They realize their stock of merchandise is too low for the volume they must do to have a good year, and they are boldly embarking on a buying campaign on the bet that fall consumer purchasing will sustain their judgment. Practically every economic factor indicates that this judgment will be sustained. The smart manufacturer will accept this condition with pleasure and confidence as a long overdue correction of a post-war readjustment. But he will not entirely abandon himself to the current.

Wild Surmise for Advertisers

The action of the Federal Trade Commission in the Toni Twin case has opened a prospect of wild surmise among many advertisers. In this decision is a pretty clear implication that the Federal Trade Commission intends to make full use of a ruling handed down by Supreme Court Justice Black on advertising truthfullness in the "Facts" magazine case.

In this decision the Justice laid down the principle that even if all the statements in an advertisment standing by themselves were literally true, the omission of other facts or the obscuring of some would tend to mislead and, therefore, would be deceptive and fraudulent. The reader of an advertisment, it was further declared, has a right to believe that no "snares" have been laid for him.

It was apparently on this basis that the F.T.C. took action against Toni because it was not declared or inferred that the Toni Twin had received professional treatment.

This decision, of course, is excellent news for the beauty parlor people, but it opens up a large field of uncertainty, conjecture and worry for advertisers. For instance, just how will this affect the entire field of testimonial advertising.

Will the F.T.C. now approach those charming social leaders who appear in beautiful color pages of our leading magazines, and require them to state under oath that the cream which they so enthusiastically praise is the one which they use not once but consistently and in preference to anything else, as their words would indicate. And those enviable men who appear in such charming surroundings in a color photograph, would they be prepared to take an affidavit that the whiskey with which their name is associated is really their one and only favorite.

In any advertisment featuring the sale of a product where self-application enters in, must the advertiser put at the bottom of the advertisement a phrase somehing like this, "The individual or model used in this advertisement is not a professional and knew nothing about the product except for information received in reading the label or book of directions."

Punch With Newspapers

Armour Toiletries and Shulton, Inc., were the two toilet goods companies included in the eleventh edition of The Blue Book of Newspaper Advertising as the two representatives of this industry with outstanding newspaper campaigns. Dial Soap and

Desert Flower Toilet Water were the products advertised.

Dial soap was introduced to the Chicago market with full pages in all four Chicago newspapers. These pages were scented with the fragrance of the soap. Ads continued in units of 1800 or 700 lines, running twice a week for about six weeks when the frequency went up to 10 insertions a week in smaller space units. According to Armour, this brought immediate distribution and had stores on the run keeping supplied.

The Desert Flower Toilet Water campaign was a special promotion timed for the pre-Easter selling period in 113 newspapers in 100 cities. Ad sizes varied from 982 to 250 lines, with from two to seven insertions per city, based upon a calculation of the city sales potential. This campaign, according to Shulton, helped bring about a 54 per cent increase in sales to dealers in 1948 over 1947.

In commenting upon the campaign, F. N. Carpenter, Jr., assistant to the president of Shulton, said, "By using newspapers we were able to concentrate in areas where our sales potentials were largest, where other sales factors made a given city desirable and where sales results had to be secured within a given period of time."

Everyone Wants it Right Away

Some manufacturers, who are having trouble and delay in the delivery of their packages, can't understand why this should happen now when they know that the suppliers' factories are not working to capacity.

Some of these people placed their order for the packages in June for August 15 delivery and if the package, for instance, is a paper box, they had the deliveries all figured out and down in a neat form so that everything would synchronize and move forward for final delivery on "D" Day.

If for instance the package was a paper box, they went to the paper maker and had a guarantee delivery date for the paper to the printer. The printer in turn guaranteed a delivery date to the box maker. The label manufacturer guaranteed a delivery date to the box maker. These delivery dates were set so that the box maker would have ample time to cut and form the boxes and so begin shipping on August 15.

But in a great many cases things have not been working out this way at all. And the reason is just as clear and plain as the reasons why many manufacturers are having some trouble in getting their own merchandise to the retailer when he suddenly decides he wants it right away.

When the manufacturer found his orders dropping and began to cut his inventory by cancelling or reducing packaging orders, the suppliers for the same reason cut his inventory of paper, metal, adhesives, etc. to the bone. The supplier may also have been compelled to drop a certain percentage of the workers, some of whom may have been skilled. For these reasons and a few others that are characteristic of the period we are in, some suppliers in good faith and with perfectly honest intentions have simply been unable to meet the shipment date which they anticipated would not be difficult.

When a package is an assembled package, such as a paper box, and dependent upon the mutual production of several different types of companies whose products are all focused and joined in the paper box company, this condition has been even more aggravated.

We have been going through a period where orders suddenly dropped with very little warning, and every one from the retailer back to the raw material supplier found themselves with too big an inventory. Now the reverse is taking place. Orders suddenly, without warning, have started to flow in, inventories are at the barest minimum, and not too many people were prepared for a quick revival just when it took place.

Probably this intermediate period will soon level off at some point to a smoother operation without this seesaw confusion of orders and inventories. Then production schedules will begin to get back to some where near pre-war accuracy. It seems also that in some instances pre-war quality has not yet been achieved.

We recently heard some complaints that in certain fancy paper boxes, black spots were beginning to appear. The explanation for this, we were told, is that paper manufacturers had been running their machinery for over five years without any opportunity to stop and thoroughly clean the machines.

Postage Be Damned

A leading national magazine, with a circulation well over 1,000,000, has decided that it does not have to be too much afraid of the threatened, extravagant increase in post-office costs.

Just recently they made an experiment in a large grocery super-market in a large middle west city. The magazine was put on display near the cash register, adjacent to cigarettes. In 15 days this super-market had sold more copies than all the news stands in the city. Sales were so large and responsive that the magazine became alarmed at the size of the sales and withdrew. But they are now convinced that if the cost of postage passes a certain point that they can swing several hundred thousand copies into retail distribution at a fraction of the cost.

Lever

Things are happening for Lever Bros. Co. in California. The first is that they have opened a new west coast factory introducing a continuous centrifugal process which eliminates the traditional vat method and is supposed to be the first fundamental change in soap making for many a long year.

Also in California this company finds itself competing with a local enterprise called Lever Bros. of California, to which is attached the term "U. S. Citizens." This company is manufacturing and selling a detergent called Jentle Suds.

The laws on trade-marks and unfair competition are very vague in denying a man the right to use his own name in business.

Lever Bros. of California is operated by the brothers Clarence Lever, president and Ned Lever, executive vice president. There have been a number of court cases in the past involving this particular issue, that is whether a man may use his own name in the legitimate course of doing business. In several past decisions, in each case by different courts, it has been admitted in each case that a man could not be deprived of the absolute right to use his own name, but all agreed that every man must use his name so as not to deceive. But in no case has there been any specific agreement that would show how the original user of the name could secure complete trade-mark protection.

Design Pirates

The United States Patent Office is making a determined effort to check design piracy by speeding up the issuance of design patents on seasonal articles.

The Patent Office, fully aware of the problems of design piracy, is now attempting to take action on all applications within at least 30 to 60 days and

Stock Bottles

that give your package

INDIVIDUALIZED DISTINCTION

-available in all popular sizes

Add glamor and distinction to your package, without the costly investment of special design, by selecting one of the many artistic Swindell stock bottles . . . The four bottles illustrated are representative of a wide variety available for your choice . . . in sizes ranging from 1/8 ounce to 16 ounces.

SWINDELL BROTHERS
BALTIMORE, MD.
200 Fifth Ave., New York - Roberto Ortiz, Havana, Cuba

When you think of bottles, think of

Swindell

make it possible to prove those found patentable within six to seven weeks from the date filed.

Commissioner Kingsland pointed out, "A design patent is a true property right granted under a contract between the government and the patentee and is entitled to the same respect as other property rights."

Bulk Versus Concentrates

A good example of the dynamic character of American business is shown by the frozen, concentrated fruit juice market. About 7 per cent of this year's total orange crop will be marketed as frozen, concentrated juice, and this is an increase of almost 400 per cent for this four year old product.

This year only slightly more than half the country's oranges now move to market in their own skins; the rest go as canned or frozen juice.

About a year ago we quoted the itemized cost of each movement in distribution of the orange from the tree to the neighborhood grocery. In this cost analysis, freight and transportation turned up as one of the major costs of distribution. This new method of marketing oranges must certainly be an excellent example of one of the vital ways in which a reduction of distribution cost is being made.

Something Mrs. Public Will Now Understand

It may be that the Anti-Trust Action against the Great Atlantic and Pacific Tea company will for the first time bring public opinion to bear on this entire political question of bigness and success in business. It is possible that in the suits against companies such as the Aluminum Company and other huge industrial corporations that the public, by and large, did not really understand the issues involved, did not understand how they would touch on their own lives and their own immediate economic interest and, therefore, had a very lukewarm interest in the whole proceedings.

In the case of the A. & P. however, this touches many thousands of housewives right square in the pocketbook in a way that they can intimately understand and in which they will undoubtedly be intensely interested. It is already clearly evident that the executives of the A. & P., in their vigorous defense, are going to see that the housewife, herself, will this time make this vital decision: should bigness be penalized even though it means sacrificing a high degree of efficiency that has been translated into lower prices for the consumer.

Department of Commerce Monthly Retail Trade Report

Retail sales of all kinds in drug and department stores showing sales for the month of July 1949 as compared with the same period on 1948.

	Department Stores	*Drug Stores*		*Department Stores*	*Drug Stores*
Atlanta	–13	0	Minneapolis	–8	–7
Baltimore	–12	–5	Milwaukee	–13	+7
Birmingham	–14	–2	Newark	–20	–14
Boston	–10	+2	New York	–18	–2
Chicago	–13	–1	Philadelphia	–12	+6
Cincinnati	X	–2	Pittsburgh	–15	0
Cleveland	–15	–8	Providence	–22	–4
Dallas	X	–1	St. Louis	–14	–4
Detroit	–18	–2	San Francisco	–9	–13
Los Angeles	–17	–4	Seattle	–8	–1

In selecting the A. & P., for anti-trust action the government has deliberately, or with undue thought, brought this entire question of monopoly for the first time in American history before the jury of American public opinion. For the first time it will become apparent and easily understood to the American housewife just exactly what has happened, and for the first time she will, through her vote and her various organizations and in other ways, be in a position to express an opinion as to whether the future policy in America is to arbitrarily limit bigness simply because it is big, disregarding the fact that bigness may mean an increase in production efficiency or a lessening in the cost of distribution that has been translated into lower consumer prices. Now in terms which she understands and in the form of commodities which she purchases every day at the counter of her local market, she will understand the issues involved and she will decide whether she is willing to pay a higher price for the family grocery bill in order to arbitrarily put a ceiling on vigorous growth.

While there is a deep feeling against arbitrary monopoly in this country and an historical belief in free and open competition, by and large the people of America have not been in a position to understand the two conflicting forces of bigness and cost reduction in production and distribution.

The government is forcing this issue in the A. & P. suit, and they could hardly have picked a more appropriate company from the view-point of achieving full public understanding of the issues. We hope and expect that the executives of the A. & P. will put up a stalwart, vigorous defense because the issues involved are very important for the future of this country.

If the A. & P. is in a really strong position in their ability to prove that their growth, development and policies have reduced the cost of distribution and rendered to the public basic essentials of life at a lower price than many other forms of distribution, they also have, it seems to us, one vital weakness in their case. In defending themselves against the various sections of this action, the A. & P. will have to prove to the government that their various activities in manufacturing are not monopolistic or discriminatory in any way, and they will have to prove to the public that the manufacturing activities of the A. & P. eventuate in a saving for the public that would not take place if the A. & P. had not entered into manufacturing, but had bought on the open, competitive market from independent manufacturers.

We have felt for a long time that the excursion of the big retail units into manufacturing and private label distribution was a development that would ultimately bring them into the courts with just this kind of action.

Our Horrors Dep't

"Architectural Form" has suggested some of the changes that television may bring to American homes.

For instance, living rooms may be elongated to provide better viewing by more people. Furniture may be grouped theater-style, and luminescent paint may be used to lessen hazards to chins and funny bones in the dark.

We may even have luminescent silverware and dishes as well as small, convertible tables so that meals need not interrupt the program.

New Products and New Packages

ABBOTT LABORATORIES offers three new products, Pentaquine and Quinine for use as a curative agent in vivax malaria, believed to be more effective than either constituent; Vitamin A capsules, containing 100,000 U. S. P. units of vitamin A derived from synthetic vitamin A acetate and fish liver oils; and Donopak-24, a blood collection apparatus. Each unit contains a 24-inch length of plastic tubing, two attached needle adapters with protective coverings, and a pinch clamp, packed sterile and ready for use.

GEORGE A. BREON & CO., has prepared Nisulfazole, a 10 per cent sulfonamide suspension in a 2 per cent pectin vehicle for the treatment of non-specific chronic ulcerative colitis.

BRISTOL LABORATORIES announces the preparation of Flo-cillin aqueous, a suspension of crystalline procaine penicillin G containing 300,000 units per cc. which gives therapeutically effective blood concentrations for a period of 24 hours or more following the injection of one cc.

CIBA PHARMACEUTICAL PRODUCTS, INC., is marketing Carmethose, used in the treatment of peptic ulcers, a soothing antacid which reduces gastric acidity and gives prompt, prolonged relief from ulcer symptoms with no disagreeable effects. It will not cause constipation or diarrhea.

CUTTER LABORATORIES is making available Coccidioidin 1:100, an intradermal skin test used in diagnosing coccidioidomycosis. Details of the skin testing procedure are in the direction sheet supplied with the product.

DERMETICS, INC., has prepared four christmas gift packages designed in the decorative theme of red stars and silver snow flakes. The special gifts include a small gold compact, a new lipstick in christmas red, the popular 8 oz. S. A. Cleanser, and a packet of four Automatic Powder Puffs.

GALLIA LABORATORIES, INC., is introducing Timarol (Astier), a new hydrochloretic tablet, intended for the treatment of certain liver and gall bladder conditions.

HUNTINGTON LABORATORIES-INC., is marketing a new disinfectant, deodorizer, and cleanser, Scento-Pine, which is effective against both fungi and bacteria. This germicide is said to possess the pleasant deodorizing effect of steam-distilled pine oil and is non-corrosive and non-irritating to the skin in usage strengths.

LEDERLE LABORATORIES DIVISION, AMERICAN CYANAMID CO., is marketing two new penicillin products. Ledercillin Spersoids, a chocolate-flavored, dry powder, has been developed for treatment of infections caused by penicillin-sensitive organisms and as a safety measure against secondary infections in tonsillectomy or tooth extractions. Ledercillin Pectinized the other penicillin product, has a double action, in that its absorption floods the tissues immediately following injection while at the same time this absorption is extended over a period of 72 hours due to slow-dissolving procaine penicillin in the presence of aluminum monostearate.

McNEIL LABORATORIES is introducing Amotrocin, a new anti-biotic antiseptic throat lozenge, which combines tyrothricin with cetyl dimethyl benzyl ammonium chloride. It has been shown to be more effective against those bacteria most commonly responsible for upper respiratory infections than tyrothricin alone.

THE NATIONAL DRUG COMPANY has added Oramets Lozenges to their line of pharmaceutical products. The lozenges contain tyrothricin, which attacks the bacteria in throat infections, and benzocaine, which relieves the pain. They are useful after tonsillectomy and other surgical procedures in the throat and mouth, as well as for the treatment of acute infections.

NAYLON'S new fall shade, Saucy Red, will be featured in their lipstick and nail enamel this month.

NORTHAM WARREN CORP., is introducing Vintage, a new Cutex nail brilliance and lipstick shade which is a rich blue wine color and intended to blend with the new fabric shades.

ORGANON INC., is distributing a new choleretic and digestant, Biologen "Organon," which is said to furnish effective relief from biliary and digestive disturbances. The product contains ox bile extract, to stimulate bile secretion; oxidized mixed bile acids, to flush the biliary ducts; desoxycholic acid, to promote fat absorption; and pancreatin, to supply digestive ferments.

ORTHO PHARMACEUTICAL CORP., announces the marketing of Diffusin, which is claimed to speed the absorption of subcutaneously injected fluids. The administration of local anesthetics is accelerated by the use of the drug which hastens the spread of the anesthetic and the area and depth of anasthesia.

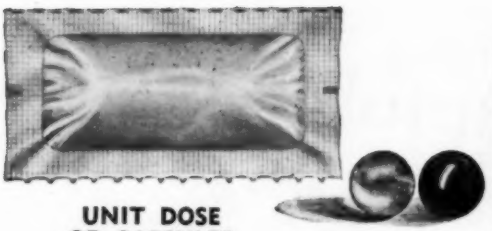
SCHERING CORP., announces the preparation of Coricidin, a new product said to be effective in warding off a cold. Each tablet contains chlortrimeton maleate, which suppresses the cold symptoms, acetophenetidin, acetylsalicylic acid, and caffeine which insure effective aborting and treatment of the condition.

SHARP & DOHME, INC., has prepared two new products, Feroma Capsules a balanced combination of ferrous sulfate and glutamic acid hydrochloride for treating secondary anemias, and Methajade Antitussive, a cough preparation which contains no sugar (desirable for patients on low caloric diets), has a pleasant lime flavor and is said to attack coughs promptly.

SMITH, KLINE & FRENCH LABORATORIES is introducing Feosol Plus, a new compound especially prepared for conditions of anemia which are resistant to iron alone. The product supplies an effective quantity of iron in the form of ferrous sulfate, various forms of Vitamin B and also Vitamin C.

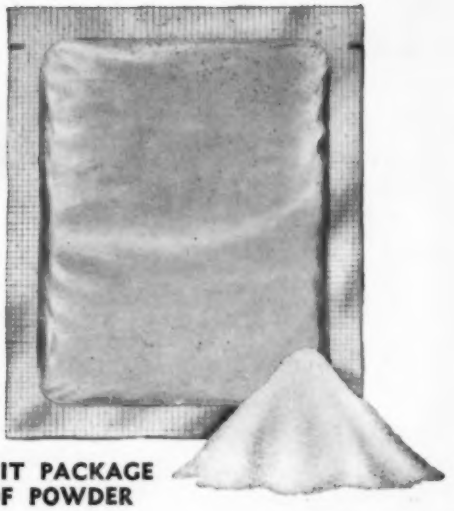
THE UPJOHN COMPANY announces the preparation of three new products: Alpha Tocopherol capsules for high Vitamin E dosage, now being used experimentally in the treatment of certain types of heart disease and muscular disorders; Orthoxine Hydrochloride, which has been found to relieve bronchial asthma, hay fever, and allied conditions; and Diurnal-Penicillin for aqueous injection, a crystalline procaine penicillin G used in the same type of infections as other parenteral penicillin products.

WHITTIER LABORATORIES has developed Caubren Compound, a new antihistaminic which is said to relieve the symptoms and shorten the duration of the common cold. Patients taking the tablets are cautioned against their possible sedative effects, although the stimulant action of caffeine keeps the reaction at a minimum.



UNIT DOSE
OF CAPSULES

SANITAPE SEALTITE



UNIT PACKAGE
OF POWDER

UNIT TABLET
OR TRITURATE

THE packages shown here represent the results of thirty years of creative development of machines, methods and unit packages to meet the needs of the pharmaceutical industry for the protection of tablets, capsules, triturates, powders and creams.

They were created by Ivers-Lee, and are protected by 78 patents with 502 claims in the United States alone. They are all available to you through the Ivers-Lee Sanitape-Sealtite Packaging Service.

When you use our machines or packaging service, you control absolutely the secrets of your formula and the sale of your product. We have no products of our own—we are not in competition with you. We are interested only in supplying the finest, most economical package for your product.

Packaging is not a side line with us—it is a science, our only business. We have over one hundred packaging machines of fifteen different designs for your use, with a daily capacity of over ten million units in one shift, a staff of four hundred at your service, and the experience of thirty years of packaging.

Let us help solve your Unit Packaging Problems

IVERS-LEE COMPANY, NEWARK, N. J.

Creators of

Sanitape-Sealtite

THE SEAL OF UNIT PACKAGING PERFECTION

Sanitape-Sealtite is a unique method of packaging pills, tablets, capsules, creams and powders, by which each unit or unit dose is sealed in its own airtight compartment surrounded by a crimp flange assuring complete protection and maintained efficacy. Packages, machines and methods covered by U. S. and foreign patents and patents pending. Available only through the Ivers-Lee Packaging Service. Infringing imitators will be subject to legal prosecution.

Adaptable for a wide variety of products...

ANCHOR* NKCT CAP

RICH and distinctive, yet economical, the *Anchor* NKCT Cap is adaptable for use with a wide variety of products requiring a dependable airtight and leakproof seal. The NKCT Cap is especially suitable for such products as drugs, proprietaries, cosmetics, toiletries and household chemicals, as well as many others.

Its scientifically designed deep rolled thread improves holding qualities on min. glass; permits ample clearance over the glass thread and prevents binding—speeds up application and keeps production costs down whether the cap is applied by hand, hand chuck or sealing equipment. Samples for test purposes gladly furnished on request.

*Reg. U.S. Pat. Off.

ANCHOR HOCKING
GLASS CORPORATION
Lancaster, Ohio

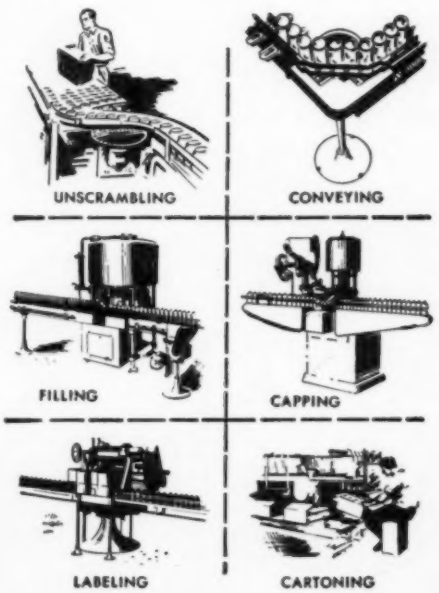
SPEED PRODUCTION with Uniform Anchorglass*

SLOW-DOWNS and shut-downs on your production lines mean lost time—lost profit. Avoid them. Pack in shock-resistant, uniform *Anchorglass* Containers—they're strong—designed and manufactured to stand up on modern, high speed production lines.

Tough, sturdy *Anchorglass* Containers are the end result of practical engineered designs, consistency in manufacture, uniform distribution of glass, accurate temperature controls in annealing, quality control through laboratory tests, regular inspections and a constant emphasis on highest manufacturing standards.

Anchorglass Containers are available in all popular styles, capacities and finishes, in crystal, amber and emerald green glass. Let us supply samples and prices.

*Reg. U.S. Pat. Off.



ANCHOR HOCKING
GLASS CORPORATION
Lancaster, Ohio

CHECK-LIST FOR DRUG, PROPRIETARY AND CHEMICAL MANUFACTURERS! Continental makes a wide and complete assortment of cans for everything from pills to powders. If your packaging problem is one of size, shape, type of closure, special protection or merchandising appeal, chances are we have just the container you need.

CHECK with CONTINENTAL

IT COSTS NOTHING TO TALK THINGS OVER AND . . .

We would like to see if, because of our size and flexibility, we could assure you of a more dependable supply . . . **Check?**

. . . or suggest improvements for your lithographed designs . . . . . **Check?**

. . . or give you better service . . **Check?**

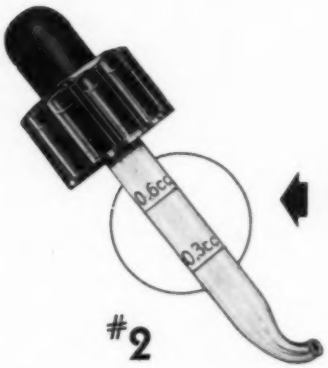
. . . or help you overcome a research or product development problem . **Check?**

So, why not "Check with Continental" today? . . . . . **Check?**

CONTINENTAL CAN COMPANY

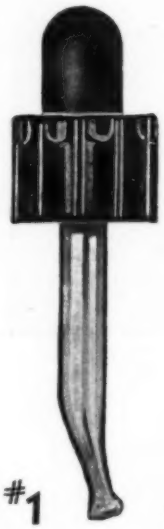
100 EAST 42nd STREET, NEW YORK 17, N. Y.

New Perfection DROPPING PARTS



#2

ACCURATELY CALIBRATED In Any Color



#1

#3

This Inexpensive EXTRA FEATURE Adds A Welcome Convenience To The Use of Your Product

Accurate calibration of New Perfection dropper glasses adds immeasureably to the user's satisfaction with your product. Not only is the specified dose measured with more precision, but the tedious and time-wasting practice of counting drops is made unnecessary.

Trade-marks or firm names may also be imprinted on the glass, assuring that the name will be identified with the product each time it is used.

#4

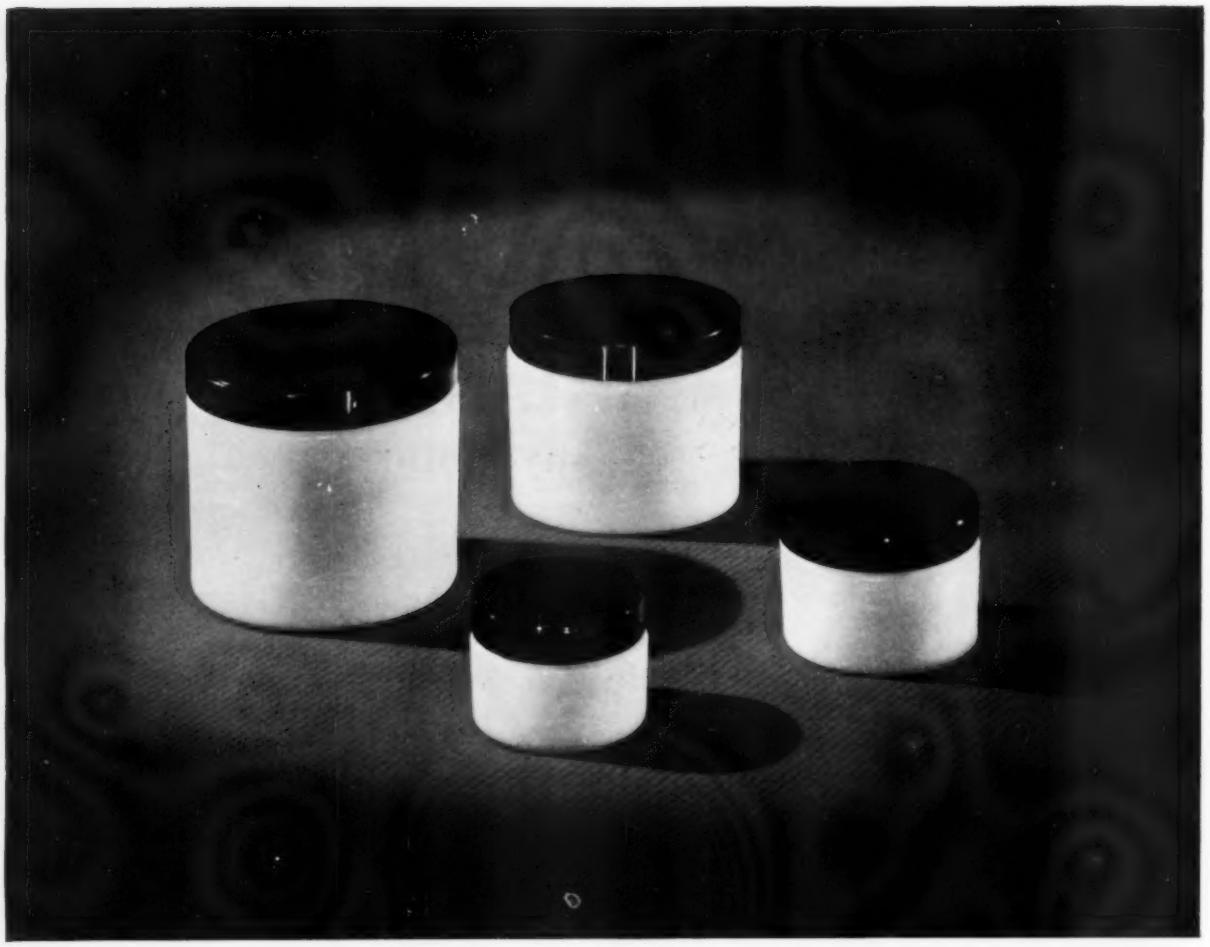
We can supply various colors of bulbs in natural rubber or in our special oil-resisting Amekine compound, caps of plastic or metal in many sizes and colors, and various types of dropper glasses in any length. New Perfection dropping parts will fit your own bottles, or can be supplied in combination with our Modernistic bottles in Amber, Blue, Green or Clear glass. Sizes: 2 cc, ⅛, ¼, ½, 1 and 2 oz.

Write for Samples and Quotations

PENNSYLVANIA GLASS PRODUCTS CO. INC.

"Glass Goods of the Better Kind"

430 N. CRAIG ST. • PITTSBURGH 13, PA., U. S. A.



CARR-LOWREY GLASS CO.

The clean, refreshing look of Carr-Lowrey Opal Jars recommends them as containers for the finest of cosmetic products. They have the brilliant whiteness and opacity that attracts attention and invites purchase of the product. Available in a complete range of sizes from ½ oz. to 16 ozs.

Factory and Main Office: BALTIMORE 3, MD. • *New York Office:* 40 W. FORTIETH ST. • *Chicago Office:* 1502 MERCHANDISE MART

How you can solve that tough container problem of yours!

. . . And we hope that you've really got a tough one—something new and challenging

Drug, cosmetic and pharmaceutical manufacturers are constantly giving us problems to solve in container design and production, and we can usually find the answer.

There are many easy and inexpensive solutions in our stock items—an exceptionally large selection of bottle caps and containers in plain, satin and highly finished metals, now available in quantities. If that doesn't do the trick, Scovill "know-how" in design effects and mechanical production methods is equipped to help you. That's why we're anxious for something difficult.

So send along your problem . . . mail coupon below, checking the item or items which parallel your needs, and we'll go to work. SCOVILL MANUFACTURING COMPANY, Drug and Cosmetic Container Division, Waterbury, Conn.

Best selling brands in leading stores have

SCOVILL-MADE *Containers*

A PRODUCT OF SCOVILL

SCOVILL MANUFACTURING COMPANY
Drug and Cosmetic Container Division
63 Mill Street, Waterbury 91, Conn.

Please send full details concerning your design and manufacturing facilities. I am interested particularly in the production of

- ☐ Chemical Containers
- ☐ Cream Jar Cap and Base
- ☐ Lip Shape Perfume Holder
- ☐ Drawn Shell for Cap Combination Cap and Dispenser
- ☐ Face Powder Box
- ☐ Wick Perfume Container
- ☐ Round Perfume Bottle Holder
- ☐ Cap on Perfume Bottle

My problem is none of the above, but . . . . . .

. . . . . .

NAME . . . . . .

COMPANY . . . . . .

ADDRESS . . . . . .

CITY . . . . . ZONE . . . . . STATE . . . . . .

METAL CONTAINERS *and* CLOSURES
by
BRIDGEPORT

Vanities
Jar Caps
Bottle Caps
Drawn Talc Containers
Lipstick Containers --- Swivel, Slide, Automatic
Powder Boxes
Perfume Vial Cases and Caps
Lip Brushes
Dry and Paste Rouge Cases

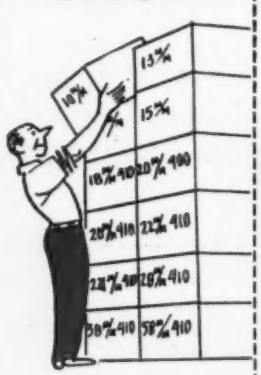
and

Other Special Metal Products for the Cosmetic Industry

THE BRIDGEPORT METAL GOODS MFG. CO.
Established in 1909
BRIDGEPORT CONNECTICUT

MOLDED CLOSURES
by **Terkelsen**

STOCK



CUSTOM

Stock sizes 10 m/m to 58 m/m in phenolics or striking urea colors

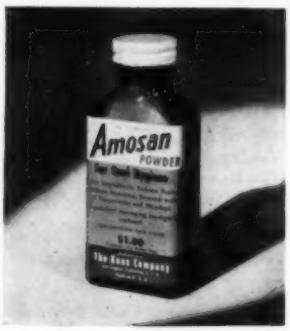
We specialize in private mold designs

Terkelsen **MACHINE COMPANY**
324 A STREET, BOSTON 10, MASS.
Jesselson Sales Co., Inc.
347 Fifth Ave., New York 15
J. Rabinowitz & Sons, Inc.
2 Hanson Place, Brooklyn 17

Use LABELS AND SEALS ..
FAITHFUL *by* SERVICE
JOHN HORN
835 - 839 TENTH AVENUE
NEW YORK 19, N.Y.
FOR OVER FIFTY YEARS
for greater sales appeal
METAL · EMBOSSED
ENGRAVED
DIE STAMPING FOR BOXMAKERS

The Knox Company of Los Angeles recommends the Crown Screw Cap on the bottle as a handy measuring cup for their product, AMOSAN . . . one capful equals one teaspoonful of the powder.

But the big thing about Crown Screw Caps is the way they seal. These caps have the exclusive Deep Hook Thread which grips *under* the glass thread of the container and seals with a positive down-pull action. Side scraping and wedging are eliminated. Caps spin on and off freely.



The liners fitted into Crown Closures have special features, too. They are made from a wide variety of materials, each scientifically selected as the best available for a specific product.

A Crown Representative will gladly transmit your sealing problem to our Laboratory where there are years of accumulated experience . . . where your products will undergo sealing tests for report to you. Crown Cork & Seal Co., Baltimore 3, Md. *World's Largest Makers of Metal Closures.*

CROWN CLOSURES

Approved by Millions of Housewives

Immediate

BACTERIOSTATIC LEVELS *plus* PROLONGED BACTERIOSTASIS

PFIZER crystalline PROCAINE PENICILLIN G *with buffered crystalline* SODIUM PENICILLIN G *for* Aqueous Injection

A single 1 cc. 400,000 unit injection of the new Pfizer Crystalline Procaine Penicillin G with Buffered Crystalline Sodium Penicillin G for *Aqueous* Injection provides all the advantages of a repository penicillin plus the immediate high blood levels attained only with a fast-acting soluble penicillin. Note these outstanding advantages:

1. **Immediate bacteriostatic action — 100,000 units of buffered sodium penicillin G provides high blood levels rapidly.**
2. **Prolonged bacteriostasis — 300,000 units of procaine penicillin G provides sustained levels in essentially all patients for 24 hours with a single 1 cc. injection.**
3. **No pain — No oil embolisms — contains no oil and no wax — suspended with aqueous diluents.**
4. **Easy to prepare and administer — just add diluent to inverted vial and shake well. May be administered with an ordinary 20 gauge needle and with a regular syringe. Aqueous diluent makes it easy to clean equipment.**

Pfizer Crystalline Procaine Penicillin G with Buffered Crystalline Sodium Penicillin G for *Aqueous* Injection is available to the medical profession through a number of leading pharmaceutical companies. Chas. Pfizer & Co., Inc., 630 Flushing Avenue, Brooklyn 6, N. Y.

400,000 Unit Single-dose Vial
2,000,000 Unit Multiple-dose Vial
4,000,000 Unit Multiple-dose Vial

Each cc. supplies 100,000 units of buffered sodium penicillin G and 300,000 units of procaine penicillin G when suspended with aqueous diluents.

World's Largest Producer of Antibiotics

PFIZER

Manufacturing Chemists Since 1849

NEWS...

McKeen Named President of Chas. Pfizer

John E. McKeen was elected president of Chas. Pfizer & Co., at a special meeting of the board of directors, September 27, according to an announcement from the company which adds, "thus continuing the Company's planned reorganization to meet its expanded activities by promoting capable men who have made unusual contributions to the Company's success, to top management positions." Mr. McKeen, a chemical engineer who has been with Pfizer for twenty-three years, was formerly executive vice-president. John L. Smith, former Pfizer president who joined the Company in 1906, has been named chairman of the board of directors, replacing George A. Anderson. Mr. Anderson, who joined the company in 1910, will remain as a director.

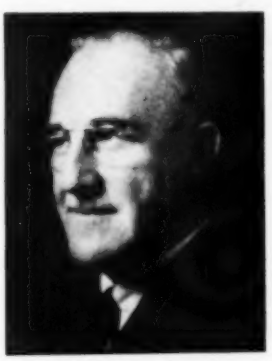
John L. Davenport, chemical engineer with the Pfizer organization for twenty years, was elected executive vice-president, and Herman A. Poitras, chemical engineer, was elected vice-president in charge of production to succeed Mr. Davenport. Allen J. Greene, chemical engineer, was appointed general production manager to succeed Mr. Poitras.

Maynard E. Simond, a Pfizer director since 1942, was elected chairman of the executive committee. Mr. Simond has resigned as president of F. Eberstadt & Co., a New York Banking House, to accept this new post.

Albert A. Teeter, former vice-president, retired from his position as a Pfizer director after 34 years with the company. Jasper H. Kane, who is now director of biochemical research and production, was elected a director in Mr. Teeter's place.

JOHN E. McKEEN

HERMAN A. POITRAS



HAROLD GREEN

JOHN L. DAVENPORT

Appointed Professor Lecturer

Dr. Richard K. Richards, director of pharmacological research at Abbott Laboratories, has been appointed professor lecturer of pharmacology and therapeutics at the Northwestern University Medical School, according to Dr. Roscoe Miller, president of the University.

Green Named Chairman of DCAT

Harold C. Green, L. Sonneborn Sons, Inc., was elected chairman of the Drug, Chemical and Allied Trades Section of the New York Board of Trade at its 59th annual meeting at Shawnee-on-Delaware, Pa. September 22-24. Additional officers named include Charles P. Walker, Jr., Citro Chemical Co., as vice-chairman; Hugh S. Crosson, McKesson & Robbins, Inc., relected as treasurer; and Helen L. Booth, secretary, also re-elected. Carl M. Anderson, Assistant to president, Merck & Co., Inc., was re-named counsel.

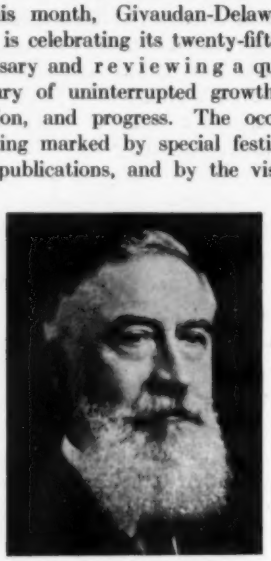
Robert B. Magnus, vice-president of Magnus, Mabee & Reynard, Inc., the retiring chairman, was elected Section Representative to the board of directors of the New York board of trade. The new executive committee, excluding officers, includes Murray Breese, Murray Breese Associates; Stanley I. Clark, Sterling Drug, Inc.; Paul H. Douglas, Bourjois, Inc.; James G. Flanagan, S. B. Penick & Co.; Russel J. Fosbinder, The Maltbie Chemical Co.; Claude A. Hanford, Pharmaco, Inc.; Robert A. Hardt, Hoffmann-LaRoche, Inc.; William W. Huisking, Chas. L. Huisking & Co., Inc.; Robert L. Hutchins, Commercial Solvents Corp.; Charles M. Macauley, Pro-phy-lac-tic Brush Co.; George S. McMillan, Bristol-Myers Co.; E. L. Shattuck, Abbott Laboratories; William H. Sheffield, Jr., Innis, Speiden & Co.; Fred G. Singer, E. I. duPont de Nemours & Co., Inc.; Gerald L. Smith, American Home Products Corp.; and Lloyd I. Volckening, The Ivers-Lee Co.

Joins McNeil Laboratories

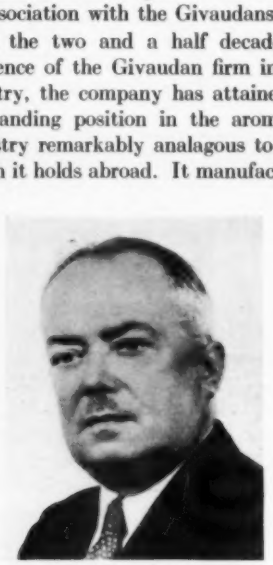
Sara Louise Kennedy, graduate of Temple University, has joined the biochemistry department of the division of medical sciences of McNeil Laboratories, Inc., as junior biochemist.

25th Year for Givaudan-Delawanna

This month, Givaudan-Delawanna, Inc., is celebrating its twenty-fifth anniversary and reviewing a quarter century of uninterrupted growth, expansion, and progress. The occasion is being marked by special festivities and publications, and by the visit to this country of Xavier Givaudan and Sylvain Fontanes, associated with the international Givaudan organization for half a century.



XAVIER GIVAUDAN



SYLVANES FONTAINES

Xavier Givaudan, now in his 83rd year, a co-founder with his younger brother, the late Leon, is here for the first time in fourteen years. He still plays an active and day-to-day part in guiding the Givaudan firm as chairman of the board of directors.

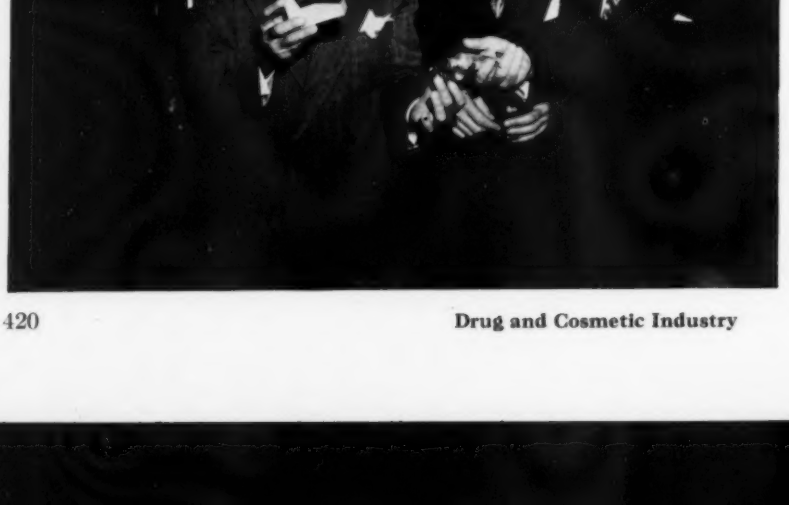
Mr. Fontanes, who on his first visit to this country, is managing director of Givaudan, France. His trip here coincides with his golden anniversary of association with the Givaudans.

In the two and a half decades of existence of the Givaudan firm in this country, the company has attained an outstanding position in the aromatics industry remarkably analagous to that which it holds abroad. It manufactures here over 250 different synthetic organic chemicals and essential-oil isoates used in perfumery. Its output of over three million pounds of chemicals per year is said to be unequalled in the perfume materials industry, and it is probably the sole aromatics company in this country whose complete line is produced in its own factories.

Business Trip to Paris

Benson Storfer, president of Corday, Inc., sailed for Paris aboard the Ile de France September 24 on a short business trip.

Examining the 1950 line of perfumizers (by De Vilbiss) at a cocktail party at the Waldorf-Astoria last month are (left to right) George Schlosser, De Vilbiss public relations director; E. Allen Newcomb, secretary of the N.W.D.A.; D. E. Fenstermaker, sales manager of De-Vilbiss; and Ray Schlotterer, executive secretary of the Federal Wholesale Druggist's Association.



Frank Wheaton Honored—50-Year Service

The T. C. Wheaton Company held a 50th anniversary celebration Saturday, September 24th in honor of Frank H. Wheaton, Sr., who has been associated with the company for as many years. Mr. Wheaton first appeared for work the day after Labor Day, 1899 in the company which was started by his father, Dr. Theodore C. Wheaton, in 1888. Dr. Wheaton had retired from his medical practice several years previously in order to devote full time to the glass factory, which produced such items as bottles, tubing, and a general line of druggists' supplies.

After the turn of the century the two-furnace plant was enlarged with the addition of a window-light factory (made panes of single and double thickness), a mould and machine shop, blacksmith shop, and in 1909 a large continuous tank which replaced one of the original furnaces. Mr. Wheaton became president of the company upon the death of his father in 1931 and the following year planned a rebuilding program, taking care to retain the hand factory operations in spite of machine competition, wherever possible. The third generation, Frank H. Wheaton, Jr. and Laur Don Wheaton, has joined the Wheaton Industry, and has high hopes that the coming fourth generation will maintain the high standards of the company.

FRANK H. WHEATON

Gelatin Brochure Available

A brochure entitled, "Gelatin—A Technical Bulletin on its Specifications, Properties, and Uses in Pharmacy and Related Technical Fields," which has been prepared for the Gelatin Research Society of America, Inc., is now available. Copies may be obtained from the Society upon request.

Wildroot Purchases Frostilla Co.

The Wildroot Co., Buffalo, N. Y., has purchased The Frostilla Co., Elmira, N. Y. The Frostilla Co., one of the oldest manufacturers of a hand lotion, had been in the hands of the Shoemaker family since 1872, and at the time of the sale last month the company was headed by Guy S. Shoemaker, president. Products of the company are Frostilla Fragrant Lotion, Frostilla Speed Shave, and Industrial Liquid No. 1.

Dolly Dimple Labs. Sold

C. L. Dunn, Atlanta, Ga., is purchasing Dolly Dimple Laboratories from Federal Products Co., Inc., 132 Walker St., S. W., Atlanta, for $15,000 cash. The purchase price calls for delivery to Mr. Dunn of "all assets, business, machinery, equipment, inventory, supplies, facilities, trade names, formulae, and trade-marks, and of all such property pertaining to the operation and used by it."

Total current assets of Federal Products Company as of July 31, 1949 total $34,033.78, of which $314.18 is cash in bank, $1,719.60 is accounts receivable, $10,000 is notes receivable, and $22,000 is estimated inventory. Current liabilities totaled $18,008.94, of which $4,703.74 are accounts payable, $3,300 are notes payable, $10,000 are loans payable, and $5.20 are reserve for payroll taxes. In addition to the current assets of $34,033.78, other assets are $17,921.50 for furniture, fixtures and equipment, and $400 for good will, making a total of $52,355.28. Net worth of the company is given as $34,346.34, which is arrived at by subtracting a deficit of $5,635.66 from $40,000, which represents the va'ue of the capital stock.

Heyden Chemical Announces New Products

Heyden Chemical Corp. is making available a group of new products in pilot plant quantities. These chemicals, which will supplement the standard products manufactured in the company's plants and will mostly be derived from them, are anisic acid, anisoyl chloride, ortho-chloro-cinnamic acid and 4,4'-dichlorobenzophenone.

To Represent Syntomatic

Robert C. Marshall has been appointed to represent Syntomatic Corporation in Pennsylvania, Maryland, and western New Jersey, according to Dr. Victor G. Fourman, of Syntomatic. Mr. Marshall's headquarters will be in the Land Title Building, Broad and Chestnut Streets, Phila.

Executive Board, Chicago chapter of the Society of Cosmetic Chemists, met informally in early September to plan agenda for the remainder of 1949. Pictured in the front row (left to right) are Robert Appenzeller, house committee chairman; Dr. Sylvia Kramer, secretary; and Gustav Carsch, publicity chairman. In the second row are Douglas Atlas, inter-professional relations chairman; Dr. Joseph Schultz, legislation chairman; Eugene Rose, vice-chairman of the chapter, and program chairman; and Dr. S. D. Gershon, chapter chairman.

Fauser Leaves Colonial Dames

Erwin F. Fauser has resigned as president and general manager of Colonial Dames. He has disposed of his interest in the company to Harold F. Willats, chairman of the board of

ERWIN F. FAUSER

directors, who is again taking over active management of the affairs of the company. Mr. Fauser is taking a vacation after which he anticipates returning to the pharmaceutical industry.

Merck Changes Export Name

The export business of Merck & Co., Inc. will be conducted under the name Merck (North America) Inc., according to George W. Merck, president of both firms. The former name of the export subsidiary was P.W.R. Export Corporation.

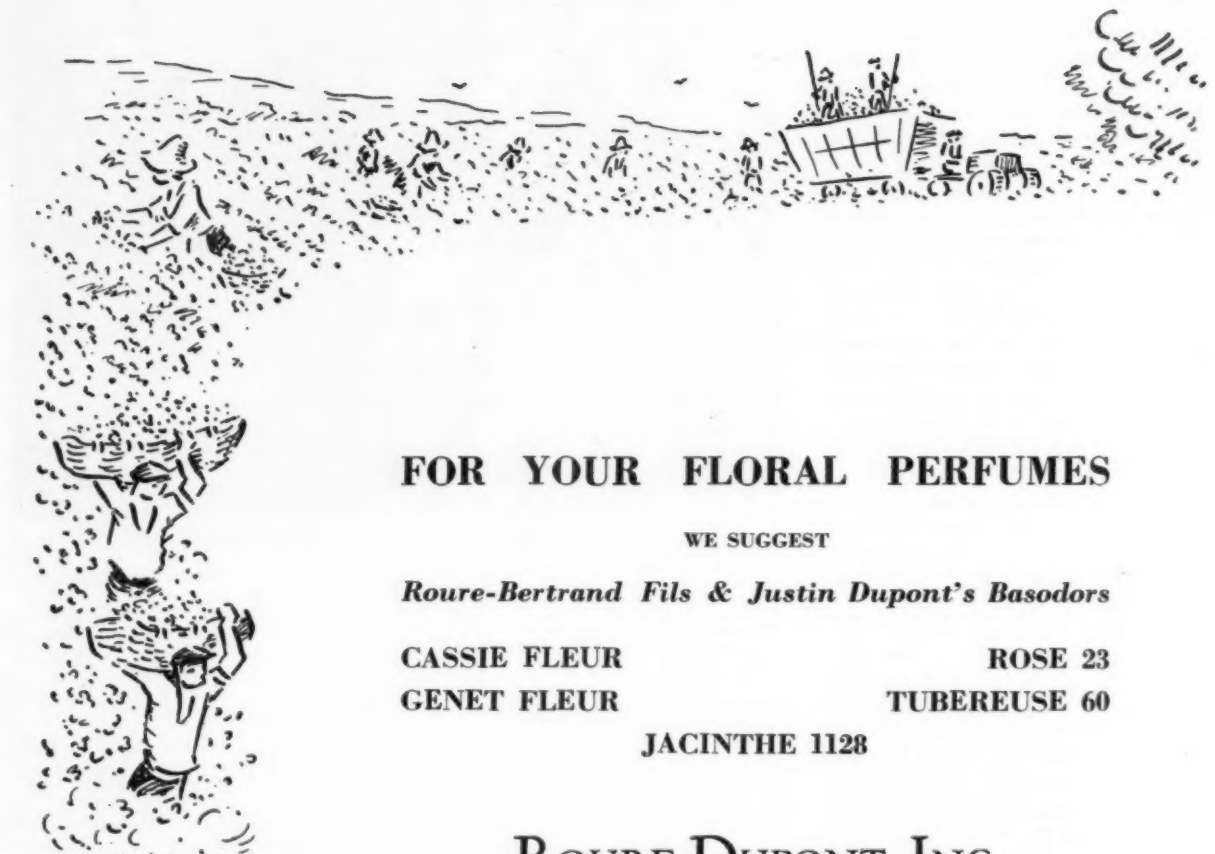
Peterson Joins Geigy

Arthur F. Peterson, formerly of E. R. Squibb & Sons, Schering Corporation, and Heyden Chemical Corporation, is now directing the sales and distribution of the newly formed pharmaceutical

ARTHUR F. PETERSON

division of Geigy Company, the well-known Swiss dye house. Ernest Hammer is director of the division.

Initial product of the division is Eurax, a prescription specialty described as an entirely new compound for treatment of scabies. Only one application of Eurax is said to be necessary in the majority of scabies cases, while two applications on successive nights result virtually in a one hundred per cent cure. Eurax contains 10 per cent of N-ethyl-o-crotonotoluide.



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Break Ground for New Laboratory

Officers of Sharp & Dohme, along with Scientific directors in the company's medical research division, and employees, held an official groundbreaking ceremony in September for the new $4,000,000 medical research laboratories at West Point, Pennsylvania. John S. Zinsser, chairman of the board, welcomed the visitors from surrounding communities, stating that still further construction would be necessary before the company could make any major shifts to the production unit already at West Point.

The new laboratories, will contain 110,000 square feet of floor space for various research departments and research administrative offices, the patent division and research library. It is expected to be ready in the spring of 1951.

Kusik in Organon Post

Alan Kusik has been appointed assistant to Dr. Gregory Stragnell, executive vice president and general manager of Organon, Inc.

New Agar Plant in Florida

The Florida Agar and Products, Inc. is planning the construction of a $75,000 plant at East Point, across the bay from Apalachicola, to extract agar from seaweed, as well as other chemicals of marine grass origin. An ice manufacturing unit will also be installed, according to Arthur L. Tucker, Jr., president and general manager, which will service the seafood industry of the community and provide cold storage facilities.

Friedman Becomes Sales Manager

Leonard Friedman, formerly assistant sales manager of Ives-Cameron Company, Inc. American Home Products Corporation subsidiary, has been advanced to sales manager of the company, according to Walter Silbersack, president of American Home Products. Ives-Cameron is the IVC vitamins division of American Home.

LEONARD FRIEDMAN

Soap & Extract Holds Meeting

The Chicago Perfumery, Soap & Extract Association's first fall meeting, was held September 20 at the Sheraton Hotel. Warden Joseph E. Ragen, penologist of Stateville, Ill. Penitentiary, was the guest speaker.

Cosmetic Chemists Will Meet

The Society of Cosmetic Chemists will hold a semi-annual meeting December 8 at the Savoy Plaza hotel, New York at which time technical papers will be read and discussed.

Sr. Gustavo Haiek of Caracas, a distributor of Schering Corp. products in Venezuela and Sr. Cesar Castillo, sole distributor in Puerto Rico, visiting the home office in Bloomfield, N. J. Left to right are Dr. John N. McDonnell, vice-president of Schering; Sr. Haiek; Francis C. Brown, Schering president; and Sr. Castillo.

Salesmen's Assoc. Hold Golf Tourney

The Salesmen's Association of the American Chemical Industry, Inc., held a golf tournament at the Huntington Crescent Club, Huntington, Long Island on September 15. Prizes were awarded as follows. In Flight A: H. Robert Miller, White Metal Mfg. Co., low gross; Paul Dunkel, P. A. Dunkel, & Co., low net. Flight B: P. F. O'Brien, of the Ehler Company, low gross and Charles W. Frost of Mathieson Chemical Corp., low net. Flight C: William J. Weed, Niagara Alkali Co., low gross, and Livingston Swentsel, Wilmot & Cassidy, Inc., low net.

Bruce Rowan, Organon, Inc., made the longest drive, while M. Eydenberg of Rosenthal-Bercow Co., shot nearest to the pin, and Edward A. Bush of Bush Aromatics won the putting contest.

The Kicker prizes were awarded to Frederick A. Koch, Dow Chemical Co.; Peter Reilly, Jr., Reilly Tar & Chemical Corp.; R. T. Reid, Witco Chemical Co.; Victor E. Williams, Monsanto Chemical Co.; Eugene McCauliff of Glyco Products; Fred Neuberg, Enco Chemical Corp.; and S. E. Stokes, Merck & Company.

Twelve past-presidents of the Salesmen's Association who were present at the Dinner which followed the golf match include: Joseph M. Wafer, West Virginia Pulp & Paper Co.; James G. Park, Enjay Company; Robert J. Quinn, Mathieson Chemical Company; J. Robert Fisher, Fisher Chemical Co.; Frank Fanning, Frank Fanning Company; Fred Koch and Oscar Lind, Dow Chemical Company; W. D. Merrill, Jos. Turner & Company; James McInnes, Jr., Commercial Solvents Corp.; Victor E. Williams, Monsanto Chemical Company; Gerald S. Furman, Gane & Inc.; and James E. Ferris, Niagara Alkali Company.

Gibernau Joins Drug Products

J. A. Gibernau has been named Executive vice president in charge of sales and advertising, according to Albert Moss, vice president of Drug Products Co., Inc. The company has given up its two proprietary divisions, Purity Drug Co. and American Druggists Syndicate, and will devote itself exclusively to ethical specialties.

Drug Products Co., has moved to a new address, 360 Glenwood Ave., East Orange, New Jersey.

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build your products on
shifting sands

for the permanent purity
your drugs and cosmetics need
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The success of your drug or cosmetic product depends largely upon the stability of the base you use. You needn't risk the permanent purity of your product by using unstable bases, because Penn-Drake Petrolatums *have and keep* all the desirable base qualities you need.

Made from 100% pure Pennsylvania crude oil, Penn-Drake Petrolatums have superior smoothness and blending characteristics. They resist oxidation, light and heat; and there is absolutely no rancidity or odor to cover up. These high quality pure petrolatums are furnished in all grades and colors from super-white to dark green.

Penn-Drake Petrolatums are extremely low in unsaturated hydrocarbons, and do not sweat because of the separation of liquid and solid hydrocarbons.

Penn-Drake Specialized Service can furnish Petrolatums with special viscosities, melting points, colors and other "slightly different" qualities, according to your specifications. May we send you a sample?

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Wm. S. Merrell Elects Three Board Members

Three executives were recently elected to the Board of directors of The Wm. S. Merrell Company, as announced by

FRANK T. JACOBS

GEORGE W. ORR, Jr.

Thurston Merrell, president. Frank T. Jacobs, advertising and promotion manager, and George W. Orr, Jr., general sales manager were named directors at a stockholders meeting held in Wilmington, Delaware, while Frank J. Messmann, director of production and purchasing, was elected earlier. It was announced that the following members of the board were re-elected: Thurston Merrell, Frank N. Getman, Nelson M. Gampfer, Robert S. Shelton, William J. Ransom, and Hermon A. High.

Firmenich Appoints Bush and Weed

Donald H. Bush and L. J. Weed, Jr. have been appointed representatives of the sales staff of Firmenich & Co., it has been announced by Charles C. Bryan, resident partner of the company. The appointees will enlarge the operations of Firmenich in both the perfumery and flavor fields.

Abreu Appointed

Dr. Benedict E. Abreu has been appointed chief pharmacologist of Pitman-Moore Company, division of Allied Laboratories, Inc.

FRANK J. MESSMANN

Anchor Hocking Announces Promotions

J. G. Callinan, plant manager of Anchor Hocking Glass Corporation (tableware division plant No. 2, Lancaster, Ohio) is being transferred to Los Angeles to become plant manager of Maywood Glass Company, an Anchor Hocking subsidiary. Other promotions in the company's container division factories which have been announced by William V. Fisher, corporation president, include the following: James M. Fordham, who becomes plant manager at Salem, N. J.; Ralph R. Newkirk, former department superintendent, who becomes general superintendent; and Louis Green, who will succeed Mr. Newkirk at Salem.

James W. Sharpe, formerly assistant plant manager at Connellsville, Penna., has been promoted to plant manager at this container factory. Mr. Sharpe will be succeeded by Harris Snell, formerly of the corporation's furnace engineering department at Lancaster Ohio.

Wheeler in Wyeth Post

George L. Wheeler, formerly assistant purchasing agent of Wyeth Company, has been appointed a sales representative of the White Metal Manufacturing Company, according to director-of-sales Stanely M. Rumbough, Jr. Mr. Wheeler, whose headquarters are at 916 Walnut St., Philadelphia, will cover the following states: Pennsylvania, Delaware, Maryland, Virginia, South Carolina, North Carolina, Georgia, and Washington, D. C.

Heyden Division Changes

New offices have been established at 225 West 34th St., New York, for the Professional Products Division of Heyden Chemical Corporation. This division, which is responsible for the development and distribution of Heyden penicillin and streptomycin products, was formerly known as the Biologics Division, but was renamed to indicate the increased scope of its activity.

Quindaro S. Ball is the new manager of this division. He comes to Heyden from Ernst Bischoff Company, Ivorytown, Conn., where he served as vice-president in charge of sales and advertising. Previously, he occupied executive sales positions with other well-known pharmaceutical manufacturers.

Dr. Charles H. Mann, for eight years with E. R. Squibb & Sons as associate director of the Department of Public Health, has been named medical director. He is a medical doctor, a doctor of public health, and a recognized authority on preventive medicine. He has been resident lecturer on preventive medicine at the University of Michigan.

Research Committee Meets

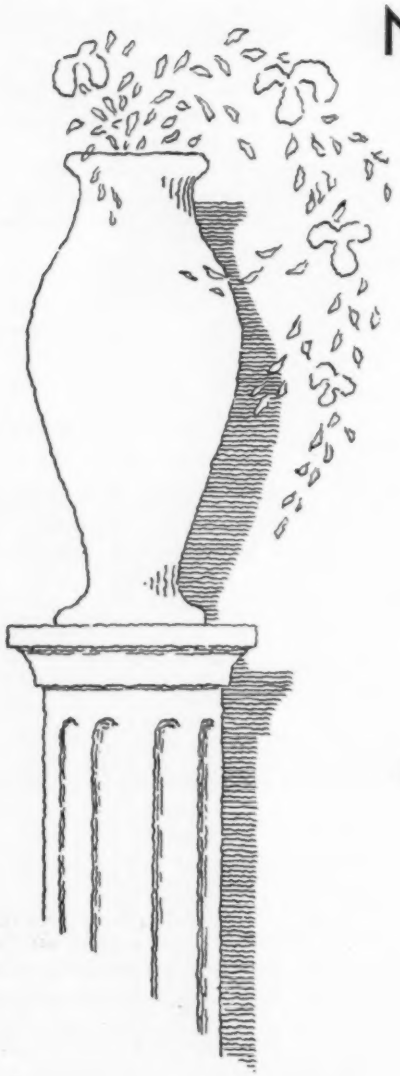
The Scientific Research Committee of the Flavoring Extract Manufacturers Association held its first meeting of the new fiscal year at the Lake Shore Athletic Club, Chicago, September 9. The meeting was attended by I. F. Plagge, chief chemist, Bowey's, Inc. with chemists J. M. Blatterman, Warner-Jenkinson Co.; F. W. Pletcher, Dow Chemical Co.; Dr. K. R. Newman, American Home Foods, Inc.; E. N. Heinz, Jr., Food Materials Corp.; and Everett Ellicson, Liquid Carbonic Corp.

Present as guests were George Chapman, vice-president of Chapman and Smith Co., former president of the Advisory Committee, and W. H. Hottinger, Jr., assistant secretary of Bowey's, Inc. and vice-president of the manufacturers association.

N.Y.Q. Changes Coast Representative

The New York Quinine and Chemical Works, Inc., Brooklyn, has announced the appointment of Gillies and Loughlin as their sales representatives on the Pacific Coast, succeeding the H. R. Laist Company, San Francisco which relinquished the account in order to concentrate their efforts on the Coast. This is the first change in the west coast sales contacts of New York Quinine in 40 years.

TOMBAREL PRODUCTS CORPORATION



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Absolute Supreme Flower Essence

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PRODUCTS CORPORATION

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P. Val Kolb Heads Sterwin Chemicals

P. Val Kolb has been elected president of Sterwin Chemicals Inc., a newly organized subsidiary of Sterling Drug Inc., according to James Hill, Jr., president of the parent company. The new subsidiary will distribute to process

P. VAL KOLB

manufacturers vitamins, vitamin concentrates, vanillin, flour bleaching and maturing agents which were previously sold by the special markets-industrial division of Winthrop-Stearns Inc., and the vanillin division of General Drug Company, also Sterling affiliates.

Frank Moudry Elected President of N.A.R.D.

Frank W. Moudry, a pharmacist in St. Paul, Minnesota, was elected president of the National Association of Retail Druggists at its closing session in New York on September 22. The out-going president is Edgar S. Bellis of Bronxville, N. Y. A complete slate of officers to serve for the next year was also named and includes Marion Hardesty, Louisville, Kentucky as first vice-president; J. J. McKeighan, Flint, Michigan, second vice-president; and John S. Veenker, Northwood, Iowa; Ralph Rooke, Richmond; and John Lynch, Philadelphia, as third, fourth, and fifth vice-presidents, prespectively.

Sarkison Appointed Dept. Manager

Formerly assistant to the manager of the field sales department of Merck & Co., Inc., Harold P. Sarkison was recently appointed manager of the department, according to Dr. J. L. K. Snyder, vice president for sales.

Visit Lautiers Fils Offices

Francois Morel, manager of the Grasse France factory of Lautiers Fils, Eugene Morel, and Ivan Gilbert recently visited the new New York offices.

Merritt Elected Secretary

Schuyler Merritt, II, treasurer of McKesson & Robbins, Inc., has been elected secretary of the company, according to William J. Murray, Jr., president, and will continue his duties as treasurer. Mr. Merritt succeeds Henry Michaels who resigned his post of secretary and vice-president due to pressure of private affairs which necessitated his moving to the Pacific coast.

Walker Corp. Celebrates 30th Year

Officers, employees, and guests of Walker Corp. & Co., celebrated its 30th anniversary September 20 at a dinner party held at Drumlins Golf and Country Club. After the banquet Dr. J. W. W. Walker, founder of the firm, showed colored slides which he and Mrs. Walker took during a recent trip to Hawaii and the Orient.

Walker, Corp., & Co., Inc., which was founded in 1919 in Auburn, N. Y. was moved to Syracuse ten years later. Having joined the company in 1930, Robert G. Long is now president of the firm, while Mrs. H. C. Minnock is secretary and treasurer.

Merck Changes St. Louis Address

The St. Louis Branch of Merck & Co., Inc. has moved to new and larger quarters at 4545 Oleatha Avenue, which provide expanded office and warehouse facilities and improved rail and truck transportation service.

Dillon with Jansen-Salsbery

Charles A. Dillon has been advanced from hospital sales manager of the Wm. S. Merrell Company to sales manager of Jansen-Salsbery, an affiliated concern, according to Merrell President Thurston Merrell. Mr. Dillon has been with Merrell for five years, first as director of market research, and then as hospital sales manager.

Join Ciba Pharmaceutical

Ciba Pharmaceutical Products, Inc. has added the following six professional service representatives to its staff: John B. Nelson, Spokane, Wash.; Merle E. Duryee, Cincinnati; Hal S. Wayl, Buffalo; James G. Smith, Philadelphia; Keen Ashurst, Jr., Miami; and James T. Berkenbaush, Philadelphia.

Wheeler Named Sales Representative

George L. Wheeler has been appointed sales representative of the White Metal Manufacturing Company. Formerly assistant purchasing agent of Wyeth, Inc., Mr. Wheeler will cover Pennsylvania, Delaware, Maryland, Virginia, South Carolina, North Carolina, Georgia, and the District of Columbia, with headquarters in Philadelphia.

Egry Appointed Sales Director

Charles E. Egry, formerly of Sharp & Dohme, has been appointed director of sales for the Arlington Chemical Company, Yonkers, N. Y.

Photographed at company headquarters in St. Louis last month are district office managers of Monsanto Chemical Company's organic division who attended a sales conference there. Back row, left to right: Robinson Ord, division sales manager, St. Louis; F. J. Curtis, vice president; T. C. Jesdale, Boston; A. T. Loeffler, New York; H. J. Tubbesing, manager, sales service; and Seth U. Shorey, manager, plasticizers and resins. Front row: W. M. Russell; E. Schuler, F. M. Luckett, H. M. Harker, and J. B. Trotter.

Collins Named President

Davis and Geck, Inc., a subsidiary corporation of the American Cyanamid Company has announced the election of Charles P. Collins as vice president and general manager of the company. Mr. Collins will be charged with the general management of the company's affairs under the supervision of Benjamin F. Hirsch, executive vice president.

Course in Perfumery Continued

The basic introductory course, "Perfume Materials and Perfumery," taught by Edward Sagarin of Givaudan-Delawanna, Inc., will be continued at Columbia University College of Pharmacy this fall. The course will survey the history of perfume materials, as well as the literature of perfumery, and will include a study of essential and floral oils, plant resins, animal perfume materials, and aromatic chemicals.

Receives Ciba Award

The annual Ciba Award for outstanding work in clinical endocrinology has been awarded to Dr. George Sayers, Assistant Professor of Pharmacology at the University of Utah since 1945. The selection was made by a committee of the Association for the Study of Internal Secretions.

Babb Joins Nepera Chemical

Russell H. Babb has been appointed director of advertising and sales promotion of the Nepera Chemical Co.,

RUSSELL H. BABB

Inc., according to William S. Lasdon, president. Prior to this position, Mr. Babb served for four years as advertising director of Bristol Laboratories.

Goby Honored by France

Francois Goby, president of Tombarel Freres, S. A., Grasse, France, recently received the distinction of "Chevalier of the Legion of Honor" from the French Government.

Pearson Joins Crown and Cork Division

Willard M. Pearson has assumed the position of manager of sales with the Bond Crown and Cork Company, Wil-

WILLARD M. PEARSON

mington, Delaware, a Continental Can Company subsidiary, according to William C. Northrop, general manager of Crown and Cork.

Wheeler Sales Agent for Gane and Ingram

Game and Ingram announces that George Wheeler of Philadelphia has been appointed sales agent in Pennsylvania, Maryland, District of Columbia, and several southern states for the company's medicinal chemicals and alkaloids.

Schieffelin Expands Parenteral Line

Schieffelin & Co. has formed a new department to expand production of its parenteral medicines. Injectable preparations include testosterone propionate, desoxycorticosterone acetate, progesterone, benzestrol-aqueous suspension, chorionic gonadotropin, phosfo-nefrin 1:1000 and crystalline penicillin G in both oil and aqueous form.

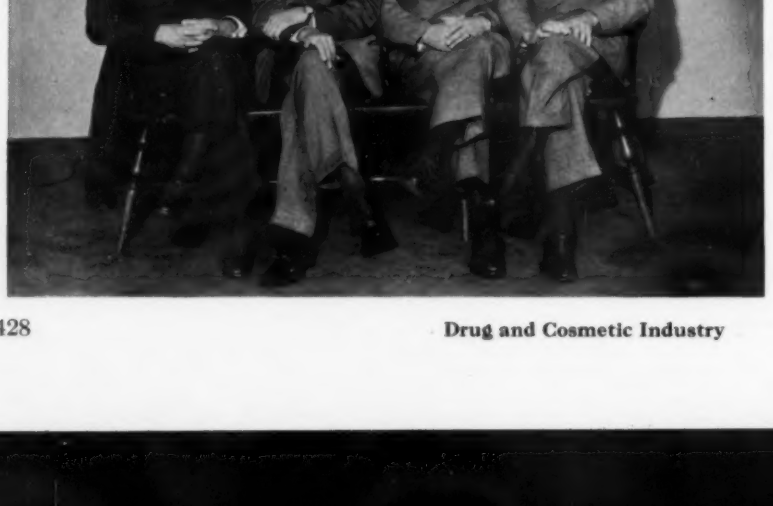
Deremiah in Schering Post

The appointment of Joseph W. Deremiah to the position of Northwestern district supervisor of the western division has been announced by Francis C. Brown, president of Schering Corporation. With headquarters in San Francisco, Mr. Deremiah will be responsible for the district comprising northern California, Oregon, Washington, Idaho, Montana, Utah and Nevada.

Accousti Named V.P.

Nicholas J. Accousti has ben elected vice president, secretary and member of the board of directors of Marvin R. Thompson, Inc., Stamford, Conn.

New officers of the Triple E Club (Ethical Drug Export Executives) which held the first meeting of the season at the Manhattan Club Sept. 29. Seated from left to right are Robert T. Bogan, Lederle Laboratories, president; Herbert G. Wahle, Eaton Laboratories, second vice president; Richard T. Turner, Pharmacy International and El Farmaceutico, secretary. Standing, in second row: are Robert F. Volentine, Schering Corp.; George F. Zealand, America Clinica; Lorenzo Arranz, Maltbie Chemical Co., treasurer; and Werner R. Voigt, Wyeth International.



Clark Named Ass't Sales Manager

Richard T. Clark has been appointed assistant sales manager of the folding cartons division in charge of Gair-Reynolds Foiline cartons, according to Wray H. Callaghan, sales manager of the Robert Gair division.

Dr. Volwiler to Head Chemical Society

Dr. Ernest H. Volwiler, executive vice-president of Abbott Laboratories,

DR. ERNEST H. VOLWILER

who is president-elect of the American Chemical Society, will head the Society on January 1, 1950. Dr. Volwiler will succeed Professor Linus Pauling, chairman of the division of chemistry and chemical engineering in the California Institute of Technology.

Bristol Laboratories Sales Changes

Bristol Laboratories have made several changes in their sales division, according to Richard A. Anderson, vice-president in charge of sales.

A. B. Dulin, formerly sales service manager, is now special assistant to Mr. Anderson, and is principally concerned with development of new accounts. Credit manager William A. Owen has taken on the additional duties of sales service manager.

Paul T. Rees, formerly Washington representative and Southern sales division manager, is now field sales manager operating from the New York office.

Charles Harrell, formerly assistant manager of the Southern sales division, is now manager with headquarters in Atlanta. John J. Mulcahey will work with Mr. Anderson on advertising and sales promotion. Orrin M. Ernst, manager of market research, has been transferred to the New York office.

Perfumers Society Holds Meeting

The American Society of Perfumers Incorporated held its first meeting for the year 1949-1950 at the Advertising Club, New York, on September 21. Hazel Rawson Cades, "Good Looks" editor of the Woman's Home Companion, as guest speaker, used as her topic, "An Editorial Slam on Perfumes."

Dr. A. Fiore, of Givaudan-Delawanna, presented three musk materials developed in their laboratories in America and abroad, discussing each one.

Arthur Colton Sales Agents

Arthur Colton Company, Detroit, has made several additions to its representations throughout the eastern territory, according to Colton President Howard N. Maynard.

Gordon W. Covey, formerly of the F. S. Stokes Machine Company, will assist Doane Hage in Metropolitan New York and Northern New Jersey with headquarters at 303 Fifth Ave., New York.

Otto E. Pfannkuch & Company, Bridgeport, Conn., have been appointed representative for Rhode Island, Vermont, Eastern New York, and Western Massachusetts.

Robert P. Waller & Associates, Boston, have been assigned Metropolitan Boston, Maine, and New Hampshire.

Roderick A. Bernick, of L. O. Bernick Compan, Buffalo will represent Colton in Western New York.

Cecil Packard will work out of Colton's Detroit office to cover Michigan and Western Ontario.

Becomes Ass't to Branch Manager

Irving J. Newfield has been named assistant to branch manager, New York branch of Bristol-Myers Company, according to Joseph R. Hardie, vice president in charge of sales.

American Cyanamid Advances Moore

Dr. L. P. Moore has been appointed manager of the New Products Development Department of American Cyanamid Company. He has been succeeded in his former position of European Technical Representative, in which he served since 1946, by Dr. E. W. Cook.

Dr. Moore has been with Cyanamid, first in the Stamford Research Laboratories, and later in the New York offices for some twelve years.

African Visitor to Schering

Eric Addy Lum, production manager of Scherag Pty. in Johannesburg, South Africa, recently visited the Schering Corporation laboratories in Union and Bloomfield, N. J., where he was introduced to Schering's research program and American production methods.

Helfrich Named Vice-president

John P. Helfrich has been elected vice-president and manager of Helfrich Laboratories, Inc., Chicago.

William R. M. Wharton

William R. M. Wharton, retired chief of the eastern district of the Food and Drug Administration, died September 8 at his summer home in Manasquan, N. J. He was sixty-seven years old. One of the original inspectors

WILLIAM WHARTON

appointed under the old Pure Food and Drug Act, in 1907, Mr. Wharton began as a field investigator at the St. Louis station later becoming a chief inspector. Mr. Wharton had been chief of the eastern district for twenty-eight years when he retired last year.

Harry R. Neilson

Harry Rosengarten Neilson, a director of Merck & Co., Inc., died Sepember 27 at his home in St. Davids, Pa. at the age of 55. Mr. Neilson is survived by his parents and three sons. An uncle, Frederic Rosengarten, and a cousin, Adolph Rosengarten, Jr., are directors of Merck.

Frank L. Graham

Frank L. Graham, retired manager of the New York office of the DeVilbiss Company, died September 14 at his home in Bronxville, N. Y. at the age of sixty-six.

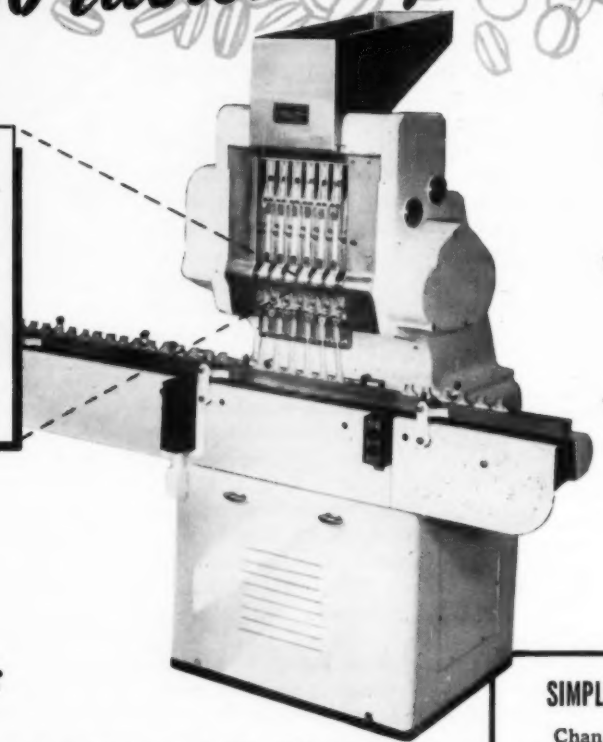
Dr. D. Ray McCullagh

Dr. D. Roy McCullagh, director of the biochemical laboratories of the Sterling-Winthrop Research Institute, died suddenly at the age of 46 in Albany on September 17 after a short illness. He had been associated with the institute only since July. Dr. McCullagh for was widely known in scientific circles his research studies which in recent years were concentrated on endocrinology. He is survived by his wife and a daughter, Marian.

US AUTOMATIC MACHINE

Counts and fills up to 360,000 tablets or pills per hour

The tablets or pills are counted by means of mechanical counting wheels with unfailing accuracy; correct count is a mechanical certainty. The tablets drop into the containers individually, thus keeping dusting and breakage at a minimum. If the tablets go into the machine whole, they come out whole.



- ★ The Model TBS fills any count, odd or even, of pills and tablets, coated and uncoated, and some types of capsules, into bottles, cartons, boxes and other rigid containers.
- ★ Produces speeds of from 60 to 150 filled containers per minute on counts of 12 to 100. Proportionately lower speeds on higher count containers.
- ★ Is available equipped with 4, 6, 8 or 10 filling chutes, to suit individual volume and speed requirements.

Model TBS, Straight Line, Fully Automatic

Model TBS, **US Automatic Tablet and Pill Filling Machines** are designed for high speed, fully automatic counting and filling of tablets and pills and some types of capsules.

Equipped for straight line delivery of containers to and from filling stations, labor costs are reduced to an absolute minimum and packaging made into a single line, completely automatic operation.

Available with many modifications, the machine is ideal either for large volume, maximum production, speed packaging of a few products or for packaging many different shapes and sizes of pills and tablets in a wide range of containers.

Always fast and accurate, the entire machine is functionally designed for versatile yet fool-proof and economical operation.

Write today for complete details.

SIMPLE, FAST, CHANGE-OVERS

Change-overs in count, container or product can be made easily and speedily, by the use of quickly interchangeable units. Following are typical change-over times:

Change of count .... 5 to 10 min.
Change of container..10 to 15 min.
**Change of product* ..20 to 30 min.

*(Indicated time applies to change in size or shape of product, includes cleaning of machine, preferably by vacuum, and will vary with conditions.)

US NET & GROSS WEIGHING ★ PACKAGE FORMING & FILLING ★ CARTON SEALING, LINING, WRAPPING ★ BOX MAKING

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Production Forum

By FRANCIS CHILSON
Industrial Consultant

Master of Architecture

I always have had deepest respect, amounting at times to veneration almost, for the master of his craft whether he be a bricklayer, artist, shoe maker, butcher, baker, candlestick maker. There is to me something enormously impressive about the way a master handles the tools of his profession. There are but few people in any trade, business or profession to whom the term "master" can be applied. I had occasion recently to observe a master of his craft at work and in more ways than one I benefited from that experience.

For many years I had wished to modernize my country house at East Chatham, N. Y., which is now my headquarters. The massive brick structure was built like a fortress in the late Victorian days and its exterior lines were hidden by too many porches and the dominating central tower characteristic of that period. At four different times I had had architects study the building to determine how best to modernize it. Their proposals would have cost a fortune to execute since most of them practically required the reconstruction of the building.

Suddenly it dawned on me that a good friend and neighbor of many years' standing, Victor Hugo, might well have some ideas on the subject since he was then supervising architect of the largest architectural firm in the U. S. Funny how you can live so close to a man and never fully appreciate his merit until something tees you off. Maybe I was instinctively reticent about bringing my two-bit problem to a man whom I knew had been responsible for the design of some very large laboratories, factories, sky scrapers and God knows what besides all over the country. Anyway I called Vic up one night and told him I was coming over with the drawings and photographs of my country house and I also informed him that he was to tell me what to do with it while I drank his Scotch—all for free.

For a few minutes Vic studied the materials and then with a bit of charcoal made a few quick sketches from which the outline of a new house emerged and he did it in far less time than it is taking me to write this article. I watched him in amazement because it hadn't taken him ten minutes to find a practical and economical answer to my problem.

All he did was eliminate the superfluous and what he handed me was essentially a demolition job. When I tell you that the total cost of the modernization job was less than two thousand dollars in comparison with the estimated cost of previous plans which ran as high as twenty, you have some measure of Vic's practical approach.

Victor Hugo is now executive vice president of Robert Glenn Inc., architects and builders, 101 Park Avenue, New York City. The next time you are confronted with a building job get into touch with Vic. You'll find he's practical, a master of his profession and a nice guy too.

The Survey

My personnel analysis survey didn't amount to a damn because too few of you cooperated to make the figures significant. I should have had data from at least 100 firms in each of the classes: ethical, proprietary, cosmetic and chemical. The data I did get from a fraction of the stated number of firms was tantalizing because it indicated the possibility of constants which might be used as yardsticks by everybody in measuring the ratios between one class of personnel and another.

You were all requested—anonymously if you wished—to supply the following data:

Type of business: ethical, proprietary, cosmetic, chemical.
Total number of products—not including shades, counts, sizes.
Total number of products including shades, counts, sizes etc. as separate items.
Total personnel.
Factory, shipping, warehousing personnel.
Sales personnel.
Office personnel.
Control personnel.
Research personnel.
Advertising and sales promotion personnel.

The first trouble that arose of course was a question of semantics and terminology. Were people engaged in market research to be counted as research personnel, sales personnel or advertising personnel? Were stenographers and clerks engaged exclusively on sales statistics to be considered as office or sales personnel? I tried to define each term at the beginning of the survey but apparently didn't do a very good job at it.

Anyway I didn't get enough data to draw conclusions nor to define trends but there were some interesting indications. In the ethical field about one third of total personnel was engaged in sales work. In the proprietary field about one tenth—one notable exception being a company which does a lot of direct selling. In the ethical field the ratio between office and sales personnel seemed almost constant—about one office worker to three sales workers. In the proprietary field the number of office workers in all cases exceeded the number of sales personnel—the ratio being about two to one. In one extreme case the ratio was five office workers to one sales worker. (They must play pinochle in that office.) In the ethical field the number of factory and sales people ran almost one to one regardless of the number of products manufactured. Contrary to my observation and experience there didn't seem to be any relation between the number of products manufactured and the number of production personnel. This situation arises from comparing the requirements of very large companies whose personnel requirements reflect volume rather than the number of products made. In order to pin the figures down on a chart it would be necessary to know dollar volume or tonnage to get truly comparative figures. The ratio between control and research personnel varied all over the lot. The only interesting observation that could be made was that the proprietary people have a higher percentage of their personnel engaged in control work than the ethical people. But with more data this observation might prove to be worthless.

The survey fizzled. I would not have commented on it at all but for the fact that so many of those who cooperated specifically asked me to do so this year.

Plant Layout and Design

There is, as I have frequently pointed out, as much logic in modernizing or designing your own new plant as there is in designing and building your own standard equipment. What usually happens in such projects is that a committee is formed to develop plans. As a rule nobody on the committee has had experience in more than one or two plants and frequently none of the committee members has had experience in any plant but his own. The boys get together and prepare some layouts. One thing is certain about all these layouts: everybody wants more space than he now has. Nobody ever seems to realize that with the right layout and the right equipment a lot *less* space may actually be required to multiply output potential. The boys read catalogues diligently without realizing that no equipment maker was ever known to list the faults in his equipment or to state the applications where it should not be used. No equipment maker was ever known to admit that his is not the best equipment ever made for the purpose.

The boys then visit as many outside plants as they can to get "ideas." Here again they frequently get bum steers because no plant manager will ever admit his mistakes or admit there might have been a much better way of doing specific jobs. I know of one plant in which the virtues of an elaborate conveyor system is pointed out to all visitors. When I first saw it and kidded the plant manager, who incidentally is a very good friend of mine although his company has never dropped a dime in my piggy bank, he admitted the whole system was a white elephant, but since his company had invested several hundred thousand dollars in it he had to use it come hell or high water. Such an investment cannot lightly be junked especially when the equipment has years yet to run before the investment is depreciated. It is one of the characteristics of the drug and cosmetic industry that the damndest mistakes can be made in setting up a plant without ever coming to light simply because our profit margins are still so wide. In this instance the president of the company is very proud of the conveyor system. He still thinks of himself as an engineer on the strength of an engineering degree received thirty years ago—even though he never spent a day in his life getting any kind of engineering experience. Another example of a little knowledge being costly.

Yet engineering experience however extensive it is, is not enough to solve your problems. It has to be combined with production experience and extensive knowledge of trade economist in your own field and that combination has to be combined with *your* experience too. A plant may work mechanically and still be far from efficient. Within fifty miles of New York there are two plants producing identical products in identical containers. The larger plant presents a very imposing show. It is to me an impressive exhibition of the wrong way to do a simple job. The plant was designed by a prominent firm of mechanical engineers whose experience in packaging generally is limited and whose experience in this particular field is nil. They designed a plant that mechanically works perfectly. It represents an investment of over a million dollars. The smaller plant represents an investment of a quarter million dollars (in both cases buildings are excepted) and it turns out more units per day than the larger plant with considerably fewer personnel. The production cost differential is of course staggering.

Hither and Yon

Wyssmont 31-06 Northern Blvd., L. I. City., N. Y. have introduced the Turbo-Cooler to cool free flowing granular material. The Unit is cylindrical and is equipped with internal rotating trays. Material fed in at the top is agitated as it passes downward over

the rotating trays to the discharge port at the bottom. Cooling air passes upward through the material. I understand this company has built a dryer on similar principles.

Air cylinders are handy gadgets to lift, for instance, pallets of bottle cases as they are being dumped to eliminate the need for the operator to bend over as well as for many similar tasks. The Bellows Co., Akron 10, Ohio, make a good one.

Moto-Truc Co., 1955 E. 59th St. Cleveland 3, Ohio has a hand controlled, battery operated fork truck which is very handy for stacking pallets two high in areas where full size power operated trucks could not be operated.

To make a turn in a conveyor belt in the horizontal plane has always been something of a trick without making a transfer to another belt running at a right angle. Leeds Electric & Mfg. Co., 152 Newington, Conn., have a wire mesh belt called Flat Flex with which the trick can neatly be done.

Totally enclosed in rubber tubes, chain conveyors are made by the Hapman Conveyor people of 2405 W. McNichols Rd. Detroit 21, for handling any kind of powder or granular material.

Trays

New-type chemical and pharmaceutical drying trays and pans, less expensive than many types currently used by the chemical and pharmaceutical industries, are announced by Laminated Plastics, Inc., 14838 Euclid Ave., Cleveland, Ohio. The trays are made of Glastic, a Fiberglas-reinforced plastic made with Laminac polyester resin. This high-strength plastic is the outgrowth of war-time developments to meet certain requirements of high-speed tactical aircraft, where a hard, rigid material of very high impact strength and light weight is of utmost importance.

Service tests have demonstrated the ability of trays to stand up under rigorous handling and corrosion conditions. The trays are light in weight, yet extremely durable and resistant to denting and chipping. They are resistant to temperatures up to 350 degrees, F., over long periods, and to the effects of most solvents, practically all hydrocarbons, most moderate acids and alkalies, and all salts. The trays are strong and rigid with a hard surface more easily cleanable, as far as chemicals are concerned, than metals. Colors can be incorporated into the resinous material if desired, for identification of the product being handled.

The trays are currently being produced by Laminated Plastics in three sizes: a shallow, square tray 25″ x 26″ x 2″ or less deep; a shallow, oblong tray 30″ x 20″ x 2″ or less deep: and an oval tub 19″ x 26″ x 6½″. Other sizes can be developed at moderate cost.

The trays are receiving rapid acceptance in chemical and pharmaceutical drying and crystallizing operations, and in some cases the life of the new trays is as much as ten times that of trays previously used.

Portable Spray Drier

A unique, portable spray-drying unit of well-known Danish design is being made available in this country through the Niro Corporation, an American firm with offices at 52 Broadway, New York City.

This compact laboratory unit, selling in the $3,500 price range, is particularly designed for experimental work in universities, laboratories, and small scale production in pharmaceutical and industrial organizations. It may be easily wheeled from one department to another. Its performance is parallel with that of the large production Niro units now in use throughout the world. This makes it possible to determine, on a small scale, the practicality and the technique of spray-drying various substances on a large scale.

The Niro Portable Laboratory Spray Drier features the specially designed, high-speed atomizer head. This atomizer head, rotating at 50,000 RPM, ejects the liquid product as an extremely fine mist into the drying chamber, where circulating warm air instantaneously

evaporates the water content. The dry product falls to the bottom of the chamber as a fine powder, where it is funnelled out as a finished, easily soluble product.

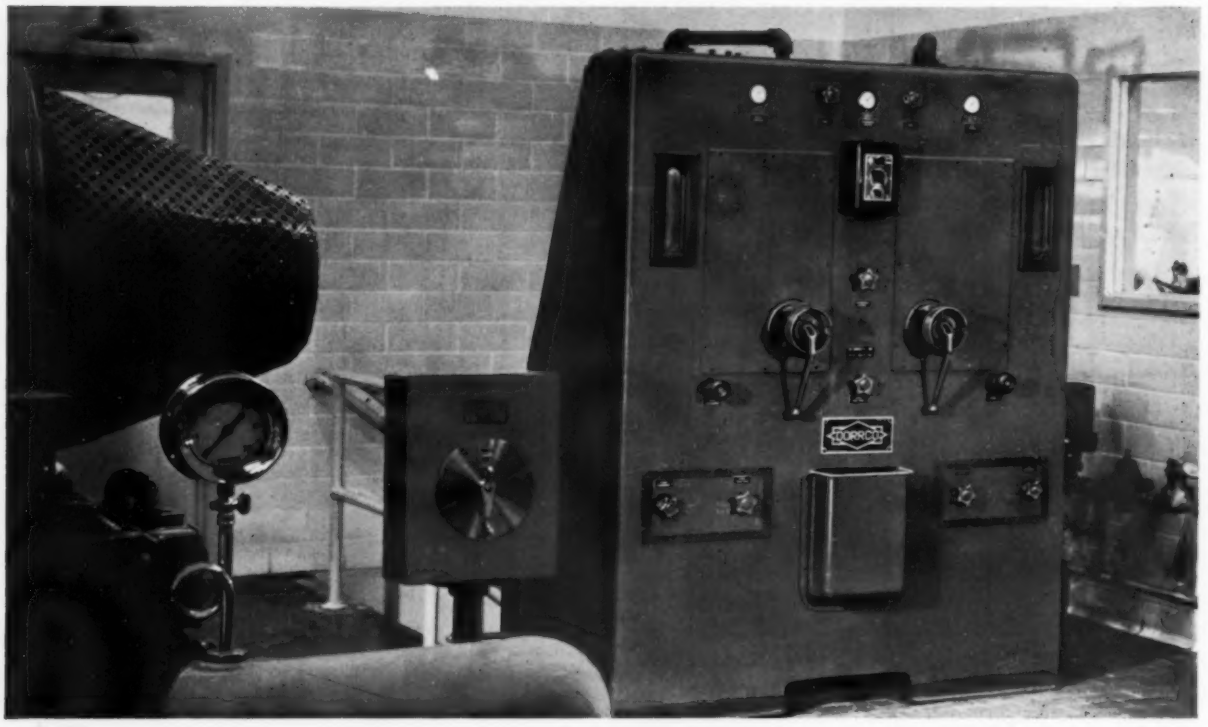
The product of the Niro method is uniform in size, spherical in shape, and can be of extremely high density.

The new portable unit is constructed of stainless steel and glass, making it particularly suited for conducting test runs on a wide variety of materials. It features a compact control panel and an eye-level window in the drying chamber, which has a top easily removable for cleaning. Finished material is discharged into a glass container immediately above the control panel. The unit is equipped with both electrical and gas heating elements, and either may be used. Its capacity is 2-15 lbs. of water evaporated per hour—depending on the material and temperature applied to the drying air.

Literature describing the Niro method and systems is available on request to Niro Corporation, 52 Broadway, New York City.

A report on the use of Dorrco D-I water in pharmaceutical manufacture.

at ORTHO PHARMACEUTICAL CORPORATION



d-i water ✓ IMPROVES PRODUCTS ✓ REDUCES COSTS ✓ SIMPLIFIES CONTROL

The Dorrco D-I System shown above was installed three years ago for the production of demineralized water for pharmaceutical manufacture. Total operating expense has averaged *42 cents per 1,000 gallons of deionized water* produced. No resin replacements have been required . . . and the unit has performed *exactly* as specified when sold.

At Ortho, D-I water has reduced costs when substituted for distilled water . . . has improved product quality and simplified control by eliminating the variable of fluctuating quality in water supply.

This is but one case where D-I water is paying off on many counts. Regardless of industry, if your process requires water free of dissolved solids, the Dorrco D-I System will produce it . . . in any amount . . . at a fraction of the cost of distillation.

Write for Bulletin #1031 for complete details.

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Dorr Technical Services and Equipment Are Also Available Through Associated Companies and Representatives in the Principal Cities of the World. Names and Addresses on Request.

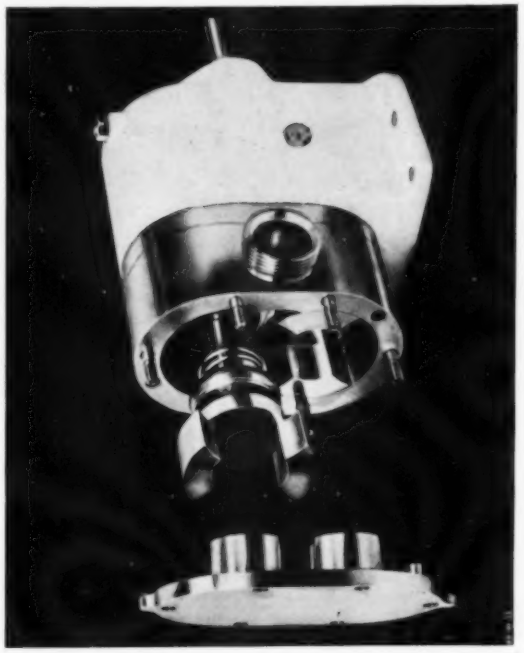
DORR
RESEARCH ENGINEERING EQUIPMENT

Sanitary Pump

Several outstanding improvements have been included in the design of Waterous Sanitary Pumps for handling milk, syrups, food products, chemicals, pharmaceuticals and the like, according to a recent statement made by the Sanitary Pump Division, Waterous Company, St. Paul, Minnesota.

Thomson said that the Waterous Company was the first to produce 100% sanitary pumps to meet the 3A Sanitary Code which outlaws threads in the product zone. The one piece rotor and shaft assembly eliminates internal shaft and seal threads in the liquid end. Contamination to milk, food and other products from this source is completely eliminated. Wetted parts are of stainless steel, insuring utmost sanitation. These parts are quickly removable, reducing cleaning time to an absolute minimum.

Controlled internal pump clearances assure positive product flow. As there is no internal metal contact or



friction between rotors and housing in the pumping chamber, flow settings remain constant.

Another feature is the slow pump speed which eliminates undue agitation or aeration of product being pumped.

It is also claimed by the manufacturer that nonrotating seal and placing of seal springs outside of pumping chamber elininates "product-plug" and does away with messiness caused by leaks and drippage. Pump maintenance is practically negligible.

Waterous Sanitary Pumps are available in capacities from 1 to 125 gallons per minute, with pump speeds ranging from 50 to 600 RPM, and with port connections from 1" to 2½".

Additional information may be had by writing direct to Mr. Leroy A. Thomson, Sanitary Pump Division, Waterous Company, St. Paul, Minn.

Fintube

The Brown Fintube Company, Elyria, Ohio manufacturers of integrally bonded fintubes and fintube heat transfer products, has just introduced its new line of Thermo-Flo Process Heaters.

These heaters are said to offer many advantages for the process heating and cooling of vegetable oils and a wide variety of other materials, and—including the cost of *single shell* tank—usually *cost less* than a jacketed vessel of equivalent capacity.

Brown Thermo-Flo Heaters consist of Brown integrally bonded fintubes mounted vertically between headers. They provide 8 to 10 times the heating surface as the same length of bare pipe coil or many times the heating area offered by a jacket. Consequently Thermo-Flo Heaters shorten the heating or cooling cycle, and permit more material to be handled than *smaller* and *less costly* vessels.

The material adjacent to the fintubes is heated quickly and—due to the difference in the gravity between the hot and cold solutions rises rapidly along the finned sections, forming a thermal siphon or "flow" within the tank, resulting in highly efficient heat transfer. This natural thermal flow is sometimes augmented by the induced flow of an agitator especially if quick mixing is desired.

The large heating area of the fintubes permits processing with low temperature differential between the heat transfer surface, and the material (i.e. at low "skin" temperature),—minimizing cracking and coking and other damage to the material from localized overheating.

Brown Fintube Thermo-Flo Heaters are available with single or multiple circular banks—in any height or diameter to meet specific duties—in low carbon or stainless steel, or nickel, monel or other alloys, to meet individual conditions. Furnished either as individual heaters—or complete with tank. The company's Bulletin No. 492 gives full details, and will be sent free on request.

Defroster

Frost condensation on low temperature heat exchange coils is completely eliminated in a system recently developed by the Surface Combustion Corporation of Toledo, Ohio. The system permanently eliminates defrosting such coils and has been tested at temperatures as low as 100°F. below zero. An adaptation of the Kathabar Humidity Control System, which has been well known to humidity conditioning engineers for many years, the new system may be used in cold storage spaces or for other applications in the industrial fields where a supply of cold dry air is required. It has the advantage over the usual type refrigeration systems of never losing its maximum efficiency due to frost formation on heat exchange equipment or requiring a complete shutdown for defrosting at regular intervals. Its operation is entirely automatic and continuous.

It is, of course, impossible to cool moist air ap-

preciably without condensing some moisture. In ordinary low temperature refrigeration systems this moisture is condensed as frost, which reduces efficiency and blocks the flow of air around the heat exchanger. The new Kathabar Frostless System prevents the accumulation of this moisture by continually spraying an absorbent solution over the cold metal of the heat exchanger. This solution immediately absorbs any condensed moisture and drips down into a sump, after which some of it is passed through a regenerator which extracts moisture from the solution so that it will be able to absorb more on the next cycle.

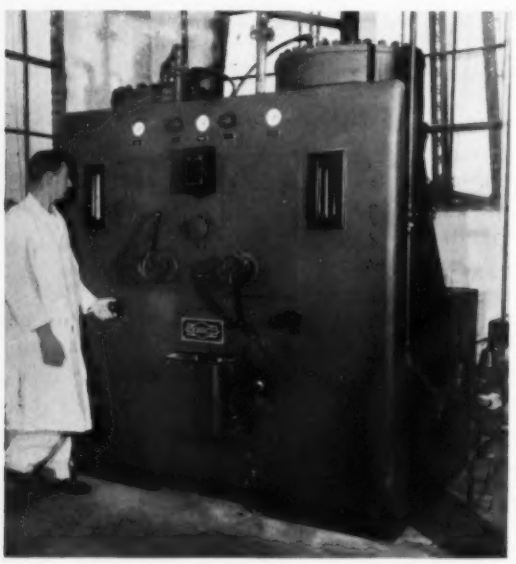
A further advantage of the system is the fact that air need not be cooled to the dew point corresponding to the moisture content required, as in "condensation" air dryers. In other words, air with a dew point of –25°F. can be obtained without actually lowering its temperature below 0°F.

More specific information may be obtained by contacting the Kathabar Division of the Surface Combustion Corporation, Toledo 1, Ohio.

Deionizer

Water—and its effect on product quality—is receiving close attention in the production of drugs and cosmetics. In the Bloomfield, N. J., plant of a manufacturer of cosmetics, dentifrices, and kindred products, deionization by means of the ion exchange process is demonstrating its effectiveness and economy.

To insure the purity and uniformity of its Dorothy Gray and Tussy cosmetics, Hinds Honey and Almond



Cream, Pebeco and Peb-Ammo Dentifrices and other preparations, the Lehn & Fink Products Corporation requires water of a quality equivalent to distilled, according to Dr. Emil G. Klarmann, vice-president in charge of research. Impurities in the form of dissolved salts may cause variations in viscosity or even separation of precisely balanced, delicately tinted emulsions. Metallic ions, particularly those of iron and manganese, may be fatal to the stability, color and odor of toiletries, since these ions, even when present in trace concentrations, tend to catalyze the oxidation of certain constituents of fine perfumes, such as the aldehydes.

To guard against these hazards to product quality, the Lehn & Fink Products Corporation had been using distilled water, with its attendant high costs, until about three years ago when a deionization unit was installed by the Dorr Company. With this equipment, Newark city water, which contains approximately 29 parts per million total hardness as calcium carbonate (total dissolved solids 39 parts per million), is treated so that it becomes equal in chemical purity to distilled. Its undesirable ions are adsorbed as the water passes successively through the beds of Amberlite IR-100, a sulfonic-acid cation exchanger, and Amberlite IR-4B, anion exchanger, synthetic resins manufactured by the Resinous Products Division of Rohm & Haas Company. The resultant effluent water (produced at a flow rate of 15 gallons per minute) is held at two ppm total hardness as calcium carbonate. Following sterilization by ultra violet lamps, the treated water is piped directly to production batches or to stainless steel storage tanks from which it is drawn as needed.

The water-feed is automatically cut off should impurities reach 10 ppm, and the exchangers are regenerated at 2-week intervals, the IR-100 with sulfuric acid, the IR-4B with sodium carbonate. At every third or fourth regeneration, the sulfuric acid is preceded by sodium chloride to prevent the formation of insoluble calcium sulfate in the bed.

By contrast with Newark water, which is relatively soft, the company's Lincoln, Ill., plant, using an identical deionizing unit, treats water of much greater hardness—approximately 200 ppm. Here the exchangers are regenerated at 4-day intervals to maintain an effluent quality at the level reached at the Bloomfield plant.

Vacuum Data Book

"Stokes Microvac Pumps for High Vacuum," a 36-page, three-color catalog and data book, is now available for the engineer, research man, works manager, and purchasing agent.

The completely new catalog and data book describes the complete line of Stokes Microvac pumps, including specifications, and their applications in research and industry.

In addition, invaluable vacuum data and engineering information is given, together with actual vacuum processing problems for many industries.

Charts, graphs and tables included in the book form a ready-reference for those in vacuum work.

Other Stokes equipment for vacuum processing is briefly described, with specifications.

The new catalog and data book will be sent on request by the F. J. Stokes Machine Company, 5900 Tabor Road, Philadelphia 20, Pa.

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"How" mixing is to be done depends on the physical characteristics of your materials; Cowles engineers recommend the type of Dissolver accordingly. "What" you are to handle determines what metal will be used in building your Dissolver; corrosion-resistant metals, if the materials are chemically active.

Lukens Clad Steels are Cowles' answer when their mixers must be protected against attack, or where metallic contamination of the materials themselves must be avoided. Nickel-Clad, Stainless-Clad, Inconel-Clad and Monel-Clad—all have been used by the Cowles Company of Cayuga, New York.

Designers of products who face this same problem can have the advantages of these *solid* corrosion-resistant metals while effecting manufacturing economies with *clad* steels. Lukens produces clad steels as wide as 178 inches, or to over 3 inches thick; claddings 10% or 20% of total plate thickness suit most uses. The extra-smooth sodium hydride finish makes cleaning extra easy.

Bulletin 449 describes these clad steels. For a copy, write Lukens Steel Company, 482 Lukens Building, Coatesville, Pa.

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Nickel-Clad Stainless-Clad
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POLISHING AND STERILIZATION OF PHARMACEUTICAL SOLUTIONS

SELAS STAINLESS STEEL PRESSURE FILTERS

To the left is a Selas Pressure Filter consisting of a micro-porous porcelain filter encased in a stainless steel jacket. It is shown installed in a stainless steel pipe line with outlet connected to solution receiving bottle—as for clarification, polishing or sterilizing.

This type of Selas Pressure Filter is equipped with a removable stainless steel pipe-connection assembly on the inlet and a stainless steel rubber hose assembly on the outlet. This construction facilitates direct connections to a solution-receiver, lessening in great degree the possibility of contamination during transfer.

Filtration is accomplished through the Selas Micro-Porous Porcelain filter element especially developed for fine filtration. Elements are available in a variety of porosities for all phases of filtration and are readily interchangeable. They are easily cleaned by either "back" or acid washing.

Selas Pressure Filters are also used for clarification of tap water, for polishing of deionized and distilled water, and for kindred applications in the drug and cosmetic industries.

Complete information and installation data are available . . . write for catalog

SELAS CORPORATION OF AMERICA

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STRAIGHT-LINE VACUUM FILLER

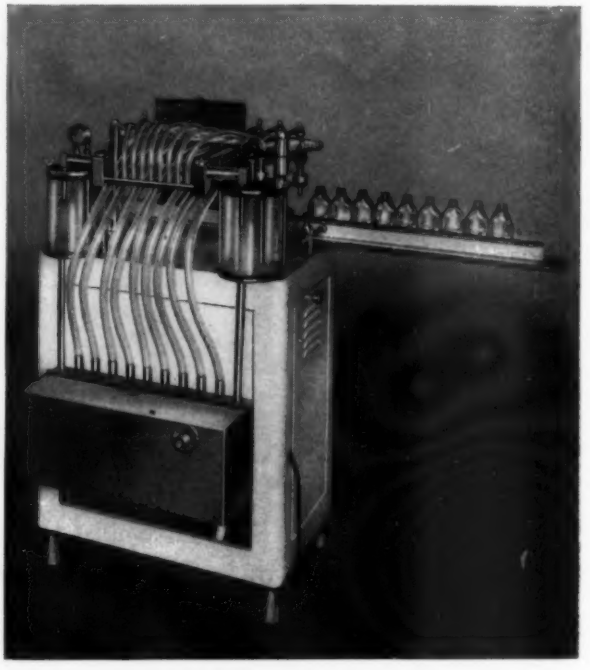

Photo of Rear view of the New Model B-49 Straight-Line Vacuum Filler showing set-up utilizing nine tubes for handling six-ounce containers

Handles Any Size Container Up to Gallons

REMARKABLE mechanical innovations introduce new automatic operation and controls for higher than ever standards of dependability. Handles any size container up to gallons by change-over from one size to another. The number of containers filled at a time and the rate of filling speed is governed by the size of the container.

EASY OPERATION—Illustration shows the feed bed loaded with nine containers while another nine containers are filling. When containers have filled, the operator trips a lever, automatically raising the filling head. With both hands free, he pushes all 18 containers on the feed bed to the right—the empty containers into filling position and the filled containers onto a chute or conveyor. The operator trips the lever back, lowering the filling head, and containers fill while the operator re-loads with empty containers and the cycle repeats. Approximately 4 to 6 cycles per minute is normal speed, resulting in a filling production of from 35 to 50 containers per minute.

AUTOMATIC CONTROLS—The automatic overflow system consists of two cylinders with gravity return to an automatic supply control tank shown near the bottom of the machine. The overflow cylinders empty automatically and operate alternately with the raising and lowering of the filling head. Thus, vacuum is maintained on filling tubes at all times.

The product can flow to the polished sanitary supply tank by gravity and the control valve will admit flow as required by speed of filling. The tank is equipped with a drain valve for easy flushing and quick cleaning at the end of a production run. The new Model B-49 Straight-Line Vacuum Filler embodies the vacuum principle that has popularized U. S. Bottlers' Filling Machines the world over. Every construction detail is built of lastest approved materials and the operating mechanism is designed with a minimum of working parts for dependable, uninterrupted production. Filling stems are exactly the same as built into our fully automatic vacuum fillers. Operated by 1/2 h.p. 110-220 volt motor.

For further information, write us for the Model B-49 Bulletin.

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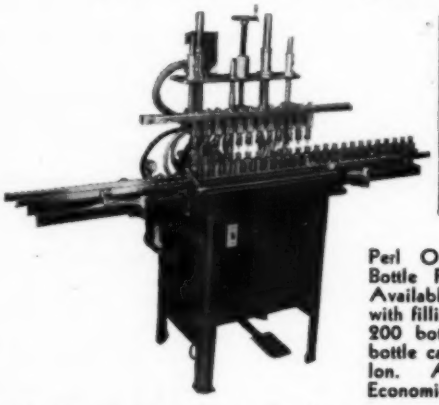
Lower Your Costs — Speed Operations



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Patent Thoughts and Trends

By THOMAS CIFELLI, Jr., Patent Attorney

Design Patents in the Drug and Cosmetic Industry

Design patents have never taken hold in the Drug and Cosmetic Industry. The important reasons for this situation are not hard to find. In the first place, our industry is mostly concerned with putting out better products or finding better ways of making known products, and any patentable findings resulting from these operations come under the so-called mechanical patents, as distinguished from design patents. The term "mechanical" patents is really a misnomer, as it covers chemical and electrical inventions as well as purely mechanical ones. Long usage, however, has sanctioned the application of the term "mechanical" patents as indicated. Another reason for the lack of popularity of design patents is the rather limited protection given by such patents, the protection extending merely against designs which have the same appearance as that of the design covered by the patent in question. A third factor in the picture is the comparatively greater difficulty which has been experienced in the past in obtaining design patents, as compared with the trials and tribulations of obtaining mechanical patents—which trials and tribulations are bad enough.

The purpose of the present article is twofold: (1) to call to the attention of the readers two quite recent facts which would indicate that design patents should not be unduly difficult to obtain in the future; and (2) To point out certain categories open for patent protection to the Drug and Cosmetic Industry.

Liberal Court Rule on What Constitutes A Patentable Design

In the process of obtaining patents, mechanical, design or plant, for all practical purposes the supreme court is the Court of Customs and Patent Appeals, in Washington, D. C. This court, as well as the federal courts in the District of Columbia, has jurisdiction to review the decisions of the Patent Office tribunals. Although the CCPA therefor shares its jurisdiction in these matters with the federal courts, as a practical matter the large majority of cases appealed from the Patent Office are taken to the CCPA. Consequently, its decisions are of great importance and authority in the patent field. Last Spring the CCPA decided the case of *In re Davis*, the decision being reported at 81 United States Patents Quarterly 406. This case involved a design for a carbon pile regulator. The Patent Office tribunals had held that the applicant was not entitled to a design patent and had cited various patents which it contended showed the various features of the design. Even though the court found that in one or another of the references it is possible to find individual features which were simulated by the individual features of Davis's design, the court overruled the Patent Office tribunals, because it felt that the over-all appearance of Davis's device was decidedly different from that of any cited reference. In other words, it would seem that this case held that it is not enough for the Patent Office to find various features of the design in question and combine these various features in order to reject the design application. As long as the design in question is decidedly different from that of any of the references relied upon by the Patent Office, it would seem that the Davis case doctrine would require that a patent be granted.

Kingsland Comments on Design Patents

The U. S. Commissioner of Patents, Colonel Lawrence C. Kingsland, in a recent talk made some remarks which, as reported in the press, would seem to indicate that the present policy of the Patent Office is directly in line with the Davis case. Speaking before a meeting of the Fashion Originators Guild of America at the Waldorf-Astoria Hotel in New York City on September 14, Colonel Kingsland is reported to have pointed out that patents under the Design Patent Act were entitled to the same measure of protection as those under public grants. He was quoted as having said:

"Obviously, where a valuable right is granted to an individual, the public must be protected against unauthorized grants, and in order that this objective may be accomplished the Patent Office is charged with the duty and obligation to examine design applications in order to determine whether or not the submitted design does in fact comply with the provisions of the law."

"Once the patent is granted it must be presumed, until the contrary is found by a competent Federal Court, that the design patentee is the owner of the property inherent in the grant. Our people in general are law-abiding and desire to respect the rights of others. We do not wilfully trespass on the rights of others. The recognition of the right of property is one of the attributes of our free economy and enterprise.

"Those in the field of production and sale of articles that are the subject matter of design patents are well advised to avoid trespass on the patent grant. The designer patentee has earned the position of owner of property under a Federal grant and our laws protect the grants so long as they are the result of compliance with the provisions from which they emanated."

Also of importance was the Commissioner's statement that the Designs Division of the Patent Office was aware of the necessity for expediting the issuance of design patents for seasonal items and that it is the hope of this division that in the near future all applications of a seasonal nature will receive action within at least thirty to sixty days to make possible approval of patentable items within six or seven weeks from the date of filing.

Some Highlights Regarding Design Patents

Before considering the various categories applicable to the Drug and Cosmetic Industry for design patent protection let us pause for a moment to consider some of the principles concerning design patents. In the first place, in order to be patentable a design has to be a new, original and ornamental design for an article of manufacture. Unlike mechanical patents, design pa-

tents may be obtained for terms of 3½, 7 or 14 years, depending upon the fee paid, these being respectively ten, fifteen and thirty dollars. As already indicated, a design patent is infringed by designs which have the same appearance as that of the patent. The test is not whether experts can find differences but whether the ordinary observer obtains the same esthetic effect from the patented design and the one alleged to infringe the patented design. Further, it is the design which is protected and not the material employed, so that if a person uses the design, regardless of the material employed, he is liable for infringement.

Areas of Design Protection Available in the Drug and Cosmetic Fields

The following listing is given in order to give an idea as to the general areas available for design protection in the Drug and Cosmetic field. While the list is comparatively long it is by no means intended to give the impression that it is complete. Also, some items on the list will apply to drugs and not to cosmetics, and vice-versa. Others may apply to both fields.

Advertising
Card racks, labels, show boxes and cards, signs and tags.

Chemicals and Medicines
Casings and tablets.

Dentistry
Miscellaneous items.

Glass
Bottles.

Measuring Instruments
Thermometers and weighing machines.

Optical Instruments

Soaps and Candles

Surgery
Nursing bottles and instruments

Toilet Articles
Combs and boxes.

Three patents have been selected for detailed consideration this month. They deal with antacid preparations, an emulsified hair-waving composition and the removal of histamine-like impurities from streptomycin.

Emulsified Hair-Waving Compositions

U. S. patent 2,479,382 was obtained on an invention by H. W. Mace of stable emulsified hair-waving compositions. Mace claims to have discovered that a highly efficient "emulsifying base" may be prepared by employing a combination of an oil soluble emulsifying agent, such as sorbitan monooleate, and a water soluble emulsifying agent, such as sorbitan monooleate polyoxyalkylene derivative or other suitable emulsifying agent, for example, the soap of certain organic amines, and adding to these substances a normally liquid chlorinated paraffin hydrocarbon selected from the group having from about 13 to about 30 carbon atom per molecule and including paraffin waxes, in which the chlorine content varies between about 10 per cent and about 70 per cent by weight depending on the compound selected and the desired specific gravity of the final solution.

Examples of the proportions of ingredients which may be employed in making the hair-waving compositions are given below in tabular form.

Mace points out that the use of ammonium thioglycollate in most previous emulsions has been limited to about 5 per cent by the weight of the total amount of emulsion because of its property of causing many of the emulsions to break when used in larger amounts. Mace claims to obtain beneficial results when about 8 per cent by weight of ammonium thioglycollate is employed.

The emulsion is compounded in the following manner: The oily material, such as mineral oil, lanolin, or both, and the chlorinated paraffin are mixed together and warmed to about 50° C. When the solution is homogeneous the required amounts of sorbitan monooleate and sorbitan monooleate polyoxyalkylene derivative, or other emulsifier, or combination of emulsifiers, are added. This forms the "oil base."

In case gelatin and borax are to be added as dispersing agents, these ingredients are dissolved in part of the water (25 gallons in the example) and heated to about 45° C. The "oil base" is then added to the heated solution and stirred until the entire mixture has cooled to room temperature. The ammonium thioglycollate is dissolved in the remainder of the water, and the pH is adjusted to a value between 9.0 and 9.5 with ammonium hydroxide. This solution is then added to the above cooled mixture and the entire mixture is agitated until it is thoroughly mixed. In some cases it is desirable to add a decolorizing agent such as sodium hydrosulfite. This is preferably introduced with the final addition of water, having been previously dissolved therein. Perfume may be also added if desired.

Antacid Preparations

A preparation having antacid or anti-constipating action or both was patented (U. S. 2,477,080) by the Michael Reese Research Foundation recently.

The inventors, Necheles and Kroll, point out that the use of acid neutralizing agents for the treatment of peptic ulcers and excessive gastric acid secretion is well known. Antacid preparations however are said to be subject to one or more marked disadvantages, among them being a transient neutralizing action due to the nature of the drug or the fact that it is almost immediately

(Continued on page 484)

	Based on 8% by Weight Ammonium Thioglycollate in the Total Emulsion							Based on Ammonium Thioglycollate in the Total Emulsion		
	Parts by Weight			Pounds, Medium	Approx. Percentage			4%	4%	2½% (by weight)
	Light	Heavy	Medium		Light	Heavy	Medium	Approx. Percentage		
Oil Base:										
Mineral Oil	0	6	2	3½	0	6	3	4	8	9
Lanolin	0	3	1	1¾	0	3	1½	2	4	4.5
Emulsion Base:										
Chlorinated paraffin (25 C atoms, 43—Cl)	4	15	5	8¾	6	16	7	10	8	9
Sorbitan Monooleate	4	7.5	5	8¾	6	7.5	7	10	10	11
Sorbitan Monooleate Polyoxyalkylene deriv.	8	15	10	17½	12	16	14	20	20	22
Dispersing Agents:										
Gelatin	.5	.5	.5	⅞	0.7	0.5	0.7	1	0.7	0.75
Borax	.5	.5	.5	⅞	0.7	0.5	0.7	1	0.7	0.75
Ammonium Thioglycollate	40	40	40	70	63	42	55	38	26	18
Ammonia as NH_3	8	8	8	14	12	8	12	15	11	12
Total constituents except water	65	95.5	72	126	12	20	14	———	———	———
Water	480	404.5	428	q. s. 100 gal.	88	80	85	———	———	———

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Chicago, Ill.—Harry Holland & Son, Inc.
Cleveland, Ohio—J. H. Hins Company
St. Louis, Mo.—C. J. P. Erickson
San Francisco, Calif.—E. M. Walls
Danbury, Conn.—J. E. Pike
Canada—H. J. McAdie Co., Ltd., Montreal and Toronto

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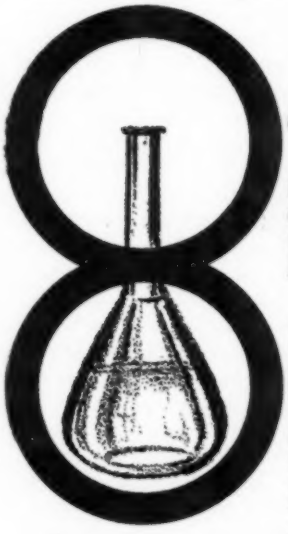

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4 It will not develop offensive odors even if kept for a long period

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YOUR TRADE-MARK RECORD

By JOHN H. GRAHAM
International Patent and Trade-Mark Consultant

ARE VIDEOMARKS THE TRADE-MARKS OF THE FUTURE?

As a product of the Atomic age, television is putting its brand on all of us today. But nowhere is it more apparent than in advertising. Everywhere we read direct predictions of the world to come and the future generation which will run it, those who have been weaned on a diet of video. From the pulpit, from the mighty words of wisdom of those who call themselves "columnists" with the "n" clearly pronounced, in every direction and in every way, we are told that television is wrecking the home. The dining room is no more, unless you are lucky enough to be able to see the television screen from there, or own two sets. Children are setting their pattern by what they see. No one goes out any more. The movie and radio industries are doomed.

There is a nostalgic tang in all this to those of us who witnessed the sudden coming to life of "wireless," a couple of decades ago. Then they who profess to read the future, told us how it would ruin the home, the movies, dance bands, sports and sports attendances, just as they are saying now. And just as none of their gloomy forebodings were true then, so now the radio programs still prosper, movies are bigger and better, The Yankees and Dodgers still do a flourishing box-office business and juvenile delinquency neither waxes nor wanes.

It looks as if we will live through the era of television, but will it result in Videomarks for future goods? In a very vital way television is causing an upheaval in trade-mark promotion. Knowing full well that one picture is worth a thousand words, the advertisers on the video screen stay up nights with their aspirin or bourbon, or both, trying to outdo each other in presenting their goods and their trade-marks visually to a progressively increasing audience.

Some of the resultant antics are comic in their over-emphasis, but again we must hark back to the early days of radio before control of advertising stepped in. Video is new and an open-house affair. Hence we have an epidemic of confusing and amusing p s e u d o-serious advertising "blurbs." But we do have to realize that a new concept has crept into the trade-mark picture. Particularly in the cosmetic, perfume and toilet goods industries, emphasis has always been placed on the spoken form of a trade-mark.

One of the first things to be considered was how easy the mark was to pronounce, how well balanced it was euphonically and whether it would appeal to the particular group of individuals or section of the public to which the product was slanted. Only as a final question, after all others had been answered with satisfaction, did the question come up of how well the mark would look on the package. The buying public have been educated for years to listen to the mark, to ask for it by name alone, to recognize and identify the word or phrase with the trade-mark owner's goods.

We now have to change this concept. It is true that much effort has been expended in the past to design beautiful packages. In our industries however, a good looking package is a selling point of itself, not as a trade-mark matter.

Surround the perfume with frills and lace, put the perfume in a slender "custom" bottle and you enhance the feeling of the high value of the goods. This is only applying a Ziegfeld technique to high quality merchandise. Television can and will change this. Now the whole package is shown. Its shape, design and general characteristics are equal in importance as the word mark by which it is bought.

At present only monochromatic representations appear. In the near future color television is predicted, which will further enhance the value of other factors of the package than the name alone.

In the past very few manufacturers have gone on the air and in other advertising fields, with a visual "look for the bright blue package with the red diamond on it" technique. Now this must be one of the phases of advertising to be stressed. In the past, there were crowded shelves to be considered in all merchandise, except that rare product which could be displayed in exclusive grandeur. There was a constant need to check how the containers would have to be stacked so that the mark and the design of the package could still be visible on those crowded shelves.

Now the shelf has become a fluorescent screen scanned with lots of little lines of light which spell out your product. It is no longer crowded in. It stands stark naked before the world. It is imperative that the marks of the future be chosen with this in mind.

Every week the Official Gazette of

the U. S. Patent Office shows some trade-marks which are not names, coined words or phrases, but are the shape, color and character of the container itself. A carton lined for specific colors here, with or without a word mark associated with it, a shaped label with a specific color scheme there. Under the 1946 (Lanham) Act, the Patent Office will consider any trade-mark submitted, if it clearly functions to show where the goods originate and is new and free of interference with what others have used before. There are and will be borderline cases hard to judge. But it is established that a mark can be registered other than a word, phrase or notation.

Perhaps today you cannot afford to consider advertising by means of television, but tomorrow has a habit of catching up with us. And since obtaining registration of a trade-mark is still a long time job, even with the trade-mark division streamlined for greater efficiency, and since it takes a lot of time and effort to bring a trade-mark up from babyhood to maturity, the time to slant your marks to the critical eye of the ever increasing seeing audience is now.

By so doing, when your package is ready for its video preview it will need no change of dress. It can carry forward all the respect it has earned by the prosaic means of counter sales, radio and magazine advertising, which were the only means of communication with your prospective customers in the pre-atomic age.

The following Trade-Marks were recently published in the Official Gazette of the United States Patent Office.

Ammen—VI—FS—518,189
Charles Ammen Co., Ltd., Alexandria, La.
Ser. Feb. 27, 1947 D. U. Apr. 15, 1905

Avium—VI—I—565,461
John T. Stanley Co., Inc., N. Y., N. Y.
Ser. Sept. 18, 1948 D. U. April 1946

Big Bath—IV—A—552,120
Colgate-Palmolive-Peet Co., Jersey City, N. J.
Ser. Mar. 17, 1948 D. U. Dec. 1911

Coty—VI—BC—562,988
Coty, Inc., N. Y., N. Y.
Ser. Aug. 7, 1948 D. U. Since 1905

Countess Maritza Rare Jewel—VI—BCEH—536,265
Countess Maritza Cosmetics Co., N. Y., N. Y.
Ser. Sept. 30, 1947

Curley—VI—ACDGH—560,867
Curley Co., Phila., Pa.
Ser. July 8, 1948 D. U. Since 1930

Dallenay—VI—BCDE—559,647
S. A. R. L., Dallenay, Paris, France
Ser. June 18, 1948 D. U. Oct. 21, 1947

Dens—VI—BH—557,770
Perfumeria Gal, S. A. Madrid, Spain
Ser. May 25, 1948 D. U. Sept. 5, 1913

Elomian—VI—H—562,724
Adele E. Naimoli, N. Y., N. Y.
Ser. Aug. 3, 1948 D. U. May 5, 1948

Evans'—VI—D—538,964
Sharp & Shearer, Inc., Reading, Pa.
Ser. Oct. 24, 1947 D. U. Since 1910

First Blush—VI—C—559,885
Harriet Hubbard Ayer, Inc., N. Y., N. Y.
Ser. June 22, 1948 D. U. Feb. 25, 1948

Fuller—IV—AM—543,437
The Fuller Brush Co., Hartford, Conn.
Ser. Dec. 5, 1947 D. U. May 29, 1926

Golden Note—VI—B—559,886
Harriet Hubbard Ayer, Inc., N. Y., N. Y.
Ser. June 22, 1948 D. U. Feb. 25, 1948

Heno De Pravia—VI—BCDEHK—557,769
Perfumeria Gal, S. A. Madrid, Spain
Ser. May 25, 1948 D. U. Aug. 5, 1912

Jardines de Esana Parfumeria Gal—VI—BCDEHK—(and des.)
Perfumeria Gal, S. A. Madrid, Spain
Ser. May 25, 1948 D. U. Sept. 23, 1947

Joy—VI—D—552,488
Jean Patou, Inc., N. Y., N. Y.
Ser. Mar. 19, 1948 D. U. October, 1931

Kayo K. O.—VI—CM—502,756
Samuel Kay, dba Kayo Drug Co., N. Y., N. Y.
Ser. May 25, 1946 D. U. July 1925

Lanotint—VI—C—558,275
Botany Mills, Inc., Passaic, N. J.
Ser. June 2, 1948 D. U. May 24, 1948

La Richesse—VI—B—569,041
Armour & Co., Chicago, Ill.
Ser. Nov. 19, 1948 D. U. July 13, 1907

Lightfoot's—IV—AM—545,497
Lightfoot Schultz Co., N. Y., N. Y.
Ser. Dec. 26, 1947 D. U. June 29, 1922

Linger Longer—VI—B—469,584
James L. Younghusband Assignor To Consolidated Cosmetics, Chicago, Ill.
Ser. Sept. 9, 1948 D. U. Apr. 10, 1944

Liquid Beauty—VI—C—513,523
Beauty Counselors, Inc., Grosse Pointe, Mich.
Ser. May 26, 1947 D. U. May 15, 1947

Lustersuds—IV—A—565,560
H. Kohnstamm & Co., Inc., N. Y., N. Y.
Ser. Sept. 21, 1948 D. U. July 1, 1940

Man Brushless Shaving Cream—IV—I—(and des.) 566,139
T. Sidney Hartley, dba Man Products, Kansas City, Mo.
Ser. Sept. 30, 1948 D. U. Sept. 5, 1945

Marisol—VI—BCD—557,772
Perfumeria Gal, S. A. Madrid, Spain
Ser. May 25, 1948 D. U. Apr. 11, 1930

Mira Young—VI—BCE—558,407
Mira Young, Inc., N. Y., N. Y.
Ser. June 3, 1948 D. U. Apr. 12, 1948

Naturelle—VI—C—546,367
Clark Millner Sales Co., Chicago, Ill.
Ser. Jan. 7, 1948 D. U. Nov. 24, 1947

Nufolene—VI—T—561,547
Athfolene Co., Inc., Canton, Ohio
Ser. July 16, 1948 D. U. May 14, 1948

Over-Tone—VI—C—559,583
Frances Denny, Phila., Pa.
Ser. June 18, 1948 D. U. May 29, 1939

Ponce De Leon—VI—BC—533,111
Mabel E. Moore, Roslyn Heights, N. Y.
Ser. Aug. 5, 1947 D. U. Jan. 15, 1946

Salate—VI—T—567,536
William Pruslin, dba Salate Products Co., N. Y., N. Y.
Ser. Oct. 23, 1948 D. U. Sept. 21, 1948

Salve Noir—VI—C—556,677
Elizabeth Arden Sales Corp., N. Y., N. Y.
Ser. Jan. 2, 1948 D. U. January 1922

Shaft—VI—I—563,310
Carter Products, Inc., N. Y., N. Y.
Ser. Aug. 13, 1948 D. U. July 22, 1948

Shampette—VI—A—575,376
Shampette, Inc., Phila., Pa.
Ser. Mar. 12, 1949 D. U. Jan. 24, 1945

Sophisti-Blend—VI—C—560,889
Richard Hudnut, N. Y., N. Y.
Ser. July 8, 1948 D. U. June 9, 1948

Swagger—VI—BC—494,949
Wolf Drug Co., Newark, N. J.
Ser. Jan. 17, 1946 D. U. Nov. 5, 1937

Thunderbolt—VI—B—563,763
J. Strickland & Co., Memphis, Tenn.
Ser. Aug. 19, 1948 D. U. Aug. 9, 1948

Uvee—VI—M—556,233
The Uvee Co., Scarsdale, N. Y.
Ser. May 4, 1948 D. U. Apr. 5, 1948

Violets are Blue—VI—ABC—568,994
Avon Products, Inc., N. Y., N. Y.
Ser. Nov. 18, 1948 D. U. Nov. 8, 1948

Winkie—IV—A—540,849 (and des.)
Michigan Chemical Corp., St. Louis, Mich.
Ser. Nov. 12, 1947 D. U. Oct. 2, 1947

Act of 1946

The following Trade-Marks have been recently republished under the terms of the above (Lanham Act). No opposition can be filed against them but they are all subject to cancellation proceedings.

BG—VI—CDEH—292,296
Reg. Mar. 8, 1932 To Barbara Gould, Ltd.
Repub. by Barbara Gould, Inc., N. Y., N Y.

Bob-O-Lene—VI—G—254,929
Reg. Apr. 2, 1929 To Alladin Cosmetic Co.
Repub. by Rilling Co., Bridgeport, Conn.

Breath of the Woods—VI—BC—442,207
Reg. Mar. 15, 1949 To D. L. Stockbridge, dba "Susan Alameda," Melrose, Mass.
Repub. by registrant

Cosmetic Trend—VI—C—394,535 (and des.)
Reg. Apr. 14, 1942 To F. L. Marken, dba The Marken Co.
Repub. by Rodolph F. Marken, Kansas City, Mo.

Enduro—VI—E—362,306
Reg. Nov. 15, 1938 To M. V. C. Labs., Inc., Toledo, Ohio
Repub. by registrant

Eska—VI—G—442,127
Reg. Mar. 1, 1949 To Turner Hall Corp., N. Y., N. Y.
Repub. by registrant

"Essential"—VI—C—414,120
Reg. May 29, 1945 To Coty, Inc , N. Y., N. Y.
Repub. by registrant

Eugeneol—VI—G—200,352
Reg. June 30, 1925 To Eugene, Ltd., N. Y , N. Y.
Repub. by registrant

Fingertips—VI—E—442,002
Reg. Feb. 8, 1949 To Studio Cosmetic Co., Assignor to Howe-Lewis, Inc., Los Angeles, Calif.
Repub. by Howe-Lewis, Inc.

Gingisol—VI—K—441,414
Reg. Nov. 23, 1948 To D. J. Barben, dba Gingisol Labs., Cleveland, Ohio
Repub. by registrant

Glory of the Sun—VI—C—261,045
Reg. Sept. 3, 1929 To Carle, Inc.
Repub. by The Armand Co., Des Moines, Iowa

Honolulu Moon—VI—BC—358,061
Reg. June 28, 1938 To Associated Dist., Inc.
Repub. by Consolidated Cosmetics, Chicago, Ill.

Ivorette—IV—A—60,074
Reg. Jan. 29, 1907 To The N. K. Fairbank Co.
Repub. by The Procter & Gamble Co., Cinn., Ohio

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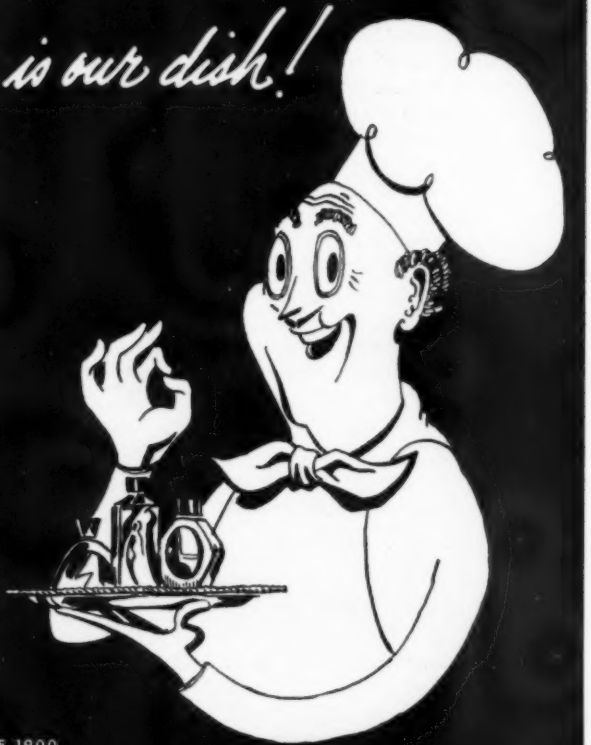

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Compounder's Corner

Suspending Agent for Lotions

During recent years, considerable attention has been directed toward the development of improved ointments. At the same time little interest has been created in the case of medicated lotions. This is particularly striking in view of the product development and excellence attained in commercially produced cosmetic lotions. To remedy this situation, S. J. Dean, D. C. Brodie and D. P. Chin (*J. A. Ph. A.*, Pract. Ed. 10:430, 1949) made studies to provide improvement in stability, chemical compatibility, ease of preparation, and general tactile acceptability of medicinal lotions.

The superiority and general acceptance of ointment bases containing mixtures of cetyl and stearyl alcohols in combination with sodium lauryl sulfate, suggested the possibility of the use of a similar combination in lotion formulation. Various combinations of cetyl alcohol, stearyl alcohol and sodium lauryl sulfate were used as suspension stabilizers. However, it was observed that the presence of stearyl alcohol imparted an undesirable granular texture to the lotions which was overcome when this alcohol was omitted. The most satisfactory combination was a cetyl alcohol stabilizer which had the following composition and was prepared as described below:

Cetyl alcohol	**36 Gm.**
Sodium lauryl sulfate	**4 Gm.**
Distilled water, to make	**1000 cc.**

Melt the cetyl alcohol on a water bath. Dissolve the sodium lauryl sulfate in 900 cc. of distilled water and heat to 55° C. Add the lauryl sulfate to the melted alcohol with constant stirring and allow to cool with intermittent stirring. A viscous, translucent liquid is formed.

This product, given the abbreviation C. A. E., provides an agent for improving the stability and skin qualities of suspended medicated lotions. The use of the C. A. E. suspending agent has been applied successfully to Calamine Lotion U. S. P., Titanium Dioxide Lotion, University of California Hospital Formulary, and White Lotion N. F. and undoubtedly can be applied to other combinations. The fact that the C. A. E. stabilizer has suitable keeping qualities makes this agent available for extemporaneous use in prescription and formulation work.

Solid Vitamin Preparation

According to the specifications of British patent 585,686, granted to the Atlantic Coast Fisheries Co., a substantially dry solid vitamin preparation is obtained by suspending particles of a solid water-soluble acid vitamin and particles of a dry alkaline substance in an oil-soluble-vitamin-bearing liquid. The resulting suspension is mixed in a warm aqueous solution containing gelatin to form an emulsion in which the aqueous solution constitutes the continuous phase and the gelatin is of a concentration which will gel upon cooling, the quantity on the alkaline substance being such as to produce in the final emulsion a *p*H of 3.5-4.8. The emulsion is subdivided into units of the desired shape, which are gelled and dried. The acid vitamin may be ascorbic acid, nicotinic acid or pantothenic acid alone or in admixture with thiamine hydrochloride, riboflavin, pyridoxine and/or nicotinic acid amide. The oil-soluble-vitamin-bearing liquid may be vitamin A, vitamin D, or both, or oils such as fish liver oils, containing these vitamins; α-tocopherol (vitamin E) may also be introduced into the oil phase. The alkaline substance may be sodium, potassium, calcium or magnesium hydroxide.

Anesthetic Lubricant

In the *Bulletin of the American Society for Hospital Pharmacists* (6:170, 1949), G. L. Phillips points out that many urologists prefer to use an anesthetic lubricant prior to the insertion of urethrol sounds or other instruments. The following anesthetics, listed in the order of preference and in the proportions incorporated, have been used at the University of Michigan Hospital in a surgical lubricant base:

1. Nupercaine hydrochloride	**0.5%**
2. Pontocaine hydrochloride	**0.75%**
3. Intracaine hydrochloride	**2.0%**
4. Metycaine hydrochloride	**4.0%**

A typical formula for an anesthetic lubricant is given as follows:

Nupercaine hydrochloride	**0.5 Gm.**
Tragacanth tears	**1.0 Gm.**
Propylene glycol	**25.0 cc.**
Zephiran concentrate 12.8%	**0.1 cc.**
Perfume	**0.1 cc.**
Distilled water, to make	**100.0 cc.**

Place propylene glycol and distilled water in a suitable container and heat to boiling. Add tragacanth and stir continuously for two hours. Then alternately stir and soak for two or three days or until smooth. Strain and add Nupercaine hydrochloride, Zephiran concentrate, and perfume and mix thoroughly. Package in small applicator tip tubes.

Pectate from Sisal Waste

According to a report in the *Chemist and Druggist* (152:150, 1949), new supplies of sodium pectate became available in Britain with development of a commercial extraction process using sisal waste as the source. The dried sisal flesh, which arrives from Africa in bales, is first freed from the tow by passing through an extemporized detowing machine, the revolving beaters of which collect the fibre. Then after "floating" the dried material on water to remove soil and other debris, the flesh is transferred to vats for hot alkaline extraction. Part of the liquor is decanted and the solids filter-pressed. The filtrate contains the crude sodium pectate. Further processing yields a product that has been freed of about 25 per cent of its water content. In this form it is sold to food manufacturers. For other purposes, the product is granulated, dried, ground and passed

through a 100-m sh sieve to yield a fine, pale buff powder containing about 10 per cent of moisture, about 60 per cent of sodium pectate, plus salt, calcuim carbonate, etc. Sodium pectate (the sodium salt of polygalacturonic acid) disperses easily in hot water, with agitation, concentrations above 1 per cent gelling on cooling. The gel is heat reversible. Agents such as sugar help dispersion. Gels are also formed by adding solutions of metallic salts (e.g., calcium chloride) or acid, to sodium pectate solutions, which cause the precipitation of insoluble gelatinous metallic pectates or pectic acid. The calcium or acid gels are stronger than the sodium pectate gel for an equivalent concentration, and they also possess the property of not being heat reversible.

It is pointed out that pectates may be used in pharmacy and cosmetics, for example, in stabilizing emulsions, and making cream bases, hair fixatives, etc. (where the compounds may replace tragacanth, sterculia, acacia, starch, etc.), and in clarifying turbid liquors. The substance also shows promise of use in bacteriology.

Improved Isolation of Plant Constituents

In the standard method of isolating specific compounds from plant materials, certain difficulties are encountered and the process is quite time consuming. A search for a new method was made by G. D. Curtis and L. E. Harris (*J. A. Ph. A.* 38:468, 1949). Their approach to the problem was to select a solvent which would extract from the plant sample as many of the constituents as possible. The next step would be to take this solution and immediately attempt to precipitate pure substances from it. Ethylene glycol monoethyl ether, sold under the trade name of "Cellosolve" was selected as the solvent to be used because of its unusual solvent powers. Cellosolve was found to be capable of dissolving the materials soluble in petroleum ether, ether, chloroform, and alcohol, as well as many water-soluble substances. It therefore appeared to be a suitable solvent for study. Another favorable property of cellosolve is its complete miscibility with water. This suggested at once the possibility of causing material to precipitate from solution by the addition of water. The miscibility of Cellosolve with all of the common solvents precluded the idea of extracting a Cellosolve solution with any other solvent. However, it was found that a method is available for separating a Cellosolve-water mixture, that is, by extracting the mixture with chloroform and then evaporating the chloroform. The number of extractions necessary to complete this separation would separate the materials in solution into those more soluble in chloroform and those more soluble in water. This would be an advantage in a phytochemical study.

Their investigations showed that within the limits of practicality, Cellosolve will extract from a plant sample all of the constituents which may be obtained by petroleum ether, ether, chloroform, and alcohol.

They estimated that the extraction and separation of plant constituents using the Cellosolve method can be accomplished in about one-third the time required for the traditional four-solvent method. Moreover, the Cellosolve method entails only about one-half the cost of the four-solvent method, this estimate being based on present prices.

B-Nicoflavin with Iron

In Bulletin No. 6 (1949) of the Bureau of Professional Relations of the University of Florida, college of Pharmacy, it is pointed out that mild or moderate deficiencies of B complex vitamins are frequently found in children convalescing from febrile, debilitating diseases and from surgery. Therapeutic advantages of balanced B complex preparations are well established. In many instances of B complex deficiency in children, the iron deficient or microcytic hypochromic anemia is found to coexist.

A preparation that is useful in the treatment of these conditions is known as Syrup B-Nicoflavin with Iron, F. F. It is made from:

Thiamin Hydrochloride	**96.0 mg.**
Nicotinic Acid Amide	**400.0 mg.**
Riboflavin	**24.0 mg.**
Ferrous Sulfate	**4.2 Gm.**
Citric Acid	**0.5 Gm.**
Distilled Water	**60.0 cc.**
Syrup of Orange, to make	**240.0 cc.**

The dose for children is one to four teaspoonfuls three times daily, according to age. For adults, the dose is one tablespoonful three times daily. Leading pediatricians who have prescribed this preparation for several years have found it excellent for the treatment of simple iron and B-complex deficiencies in children. It also enjoys wide usage as a general tonic following debilitating diseases or surgery. It furnishes more than the minimum daily requirements recommended by the National Research Council and the A.M.A. Council on Foods and Nutrition.

As indicated in another publication of the Florida group each day's dose of three tablespoons supplies:

Ferrous Sulfate	**12 grains**
Thiamin Hydrochloride	**6000 I.U.**
Nicotinic Acid Amide	**75 mg.**
Riboflavin	**1800 S.B.U.**

If capsules of B-Nicoflavin with Iron are desired the following formula, from which 50 capsules can be made, may be used:

Thiamin Hydrochloride	**260 mg.**
Nicotinic Acid Amide	**1250 mg.**
Riboflavin	**260 mg.**
Ferrous Sulfate	**13.0 Gm.**
Lactose	**5.2 Gm.**

The adult dose is one capsule three times daily. Such a dosage will provide:

Thiamin Hydrochloride	**5300 I.U.**
Nicotinic Acid Amide	**75 mg.**
Riboflavin	**6200 S.B.U.**
Ferrous Sulfate	**12 grains**

Antipruritic Cream

A formula for a rapidly-acting medicated, washable cream, suitable for the common summer-time bites and rashes is given in the July-August, 1949 issue of the *Journal of the American Society of Hospital Pharmacists.* It also often alleviates the so called "winter itch," but it may have to be used concurrently with a lipoid ointment in the latter condition. This cream also makes a fine "prep" for shaving or cream for after shave. The formula for this medicated cream is as follows:

Glyceryl Monostearate	**20.00 Gm.**
Propylene Glycol	**5.00 Gm.**
Spermaceti	**5.00 Gm.**
Water	**67.90 cc.**
Camphor	**0.50 Gm.**
Menthol	**0.50 Gm.**
Phenol	**0.50 Gm.**
Oil of Cloves	**0.25 Gm.**
Eucalyptol	**0.25 Gm.**

Heat the first four ingredients together to boiling, remove from heat, and stir until cool. Mix the latter five ingredients together and stir or grind in mortar until a clear eutectic mixture results. When emulsion cream is cool, add the eutectic mixture to it slowly with stirring, and mix thoroughly.

Fine Chemicals — BPC

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CHLORBUTANOL
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8-HYDROXYQUINOLIN
IODOXYQUINOLIN SULPHONIC ACID
NEO CINCHOPHEN
OXYQUINOLIN BENZOATE
OXYQUINOLIN SULPHATE
POTASSIUM OXYQUINOLIN SULPHATE
PHENOBARBITAL
PHENOBARBITAL CALCIUM
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PENTOBARBITAL SODIUM
THEOPHYLLINE

INTERMEDIATES

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Advancing Therapy

Cysteine Protection Against X-Rays

The possibility that the amino acid, cysteine, may afford protection against the harmful effects of X irradiation is indicated in the work of H. M. Patt, E. B. Tyree, R. L. Straube and D. E. Smith (*Science* 110:213, 1949). In their experiments, cysteine was injected into a tail vein of rats either one hour before, five minutes before or five minutes after exposure to X-rays. It was found that pretreatment with cysteine markedly reduced toxicity from total-body X irradiation. There was 82 per cent survivals of the cysteine-treated animals as against 19 per cent survival among the irradiated controls. From this data, it is concluded that cysteine, administered to rats prior to X irradiation in the nearly completely lethal range, greatly diminishes toxicity. A study of the protective influence of cysteine when administered at longer intervals before irradiation and by different routes is being studied. The effect of other substances, such as glutathione, methionine, tryptophane and ascorbic acid, is also being studied.

Dramamine vs. Pregnancy Vomiting

Nausea and vomiting occurs in about 50 per cent of pregnancies and in about 25 per cent vomiting ensues; the severity of symptoms varying in different individuals. Very interesting, therefore, is the preliminary report of P. E. Carliner, H. M. Radman and L. N. Gay (*Science* 110:215, 1949) on the use "Dramamine" (an anti-motion sickness drug) in the treatment of nausea and vomiting of pregnancy. Their investigations were made on 43 women who had complained of these symptoms for from four to six weeks and who had not been relieved by a number of remedies. Three hours after the administration of Dramamine 31 patients were completely relieved of their symptoms. Ten patients whose symptoms were controlled by the drug relapsed when a placebo was substituted, but immediately recovered after the drug was again administered. Twelve patients obtained no relief. A further extensive comparative study is being made.

Insulin Implantation

Promising results in the treatment of seven cases of diabetes mellitus, using subcutaneous implants of protamine-zinc-insulin-cholesterol in pellet form, have been obtained by Vargas and his associates (*Lancet* 1:598, 1949). Although the exact duration of the action of the pellets could not be determined, it was estimated to be 80 to 100 days—a 1 per cent daily absorption taking place. There was no danger of hypoglycemic shock, they found, because massive absorption did not occur. To prepare the pellets, protamine-zinc insulin solution was first precipitated by addition of a buffer solution. The product was filtered and the residue on the filter dried *in vacuo*, mixed with an equal quantity of cholesterol, and compressed into pellets. The pellets weighed 3 to 14 mg., and measured 1.5 mm. x 2 to 10 mm. On their results, the workers claim that the new way of administering insulin may make daily injections unnecessary, and may permit of restoration of the pituitary-pancreas relationship.

Streptomycin in Finger Infections

The use of penicillin in infections has been shown to reduce sepsis, pain and time of healing. Streptomycin, however, is as yet little known as a local therapeutic agent. However, this condition is being remedied by work such as that of J. B. Watson, E. R. Griffiths and L. W. Plewes (*Brit. Med. J.* 2:1081, 1949) on the usefulness of streptomycin in finger infections. In their study a comparison was made between the results of treatment with this newer agent with those of penicillin. Two types of infection—pulp whitlows and paronychias—are used for comparison because these infections were more true to type than others and because the more serious types, such as deep palm infections, were admitted to hospital and given systemic penicillin. No case which required systemic chemotherapy of any kind has been included. All cases presented were incised by standard procedures under general anaesthesia and with the use of a tourniquet. Streptomycin (5,000 μg. per Gm.) or penicillin (1,000 units per Gm.) was applied as a cream. This was smeared on a petrolatum gauze wick which remained *in situ* for two days.

Following a study of the results obtained it was concluded that streptomycin is a better local agent in the treatment of pulp infections and paronychias than penicillin. Its use has resulted in a decrease in the secondary infection rate—more rapid healing with consequent decrease in the time lost from work.

Nisin, a New Antibiotic Against T.B.

In the *Lancet* for July 30, 1949 (p. 190), Hirsch and Mattick report that nisin, an antibiotic produced by *Streptococcus lactis* and already used with success against forms of bovine mastitis, is mainly effective against Gram-positive organisms, and in particular against the tubercle bacillus. When tested *in vitro* the substance appeared to have the same activity against the tubercle bacillus, weight for weight, as streptomycin. Streptomycin-resistant cultures were found sensitive to nisin, and vice versa—an important finding, the workers point out, as there seems to be some correlation between the streptomycin resistance of the infecting strain of the tubercle bacillus and the prognosis of the illness. There was no synergism, or even marked additive action *in vitro*, between nisin and streptomycin or between nisin and licheniformin. More than an additive effect was obtained, however, against *Mycobacterium tuberculosis* with mixtures of nisin, streptomycin and licheniformin; and nisin licheniformin, and sulphathiazole.

In vivo experiments using guinea-pigs and rabbits showed that crude and pure nisin gave considerable protection against infections of tuberculosis. Intravenously, or intramuscularly, there was rapid absorption, with little local reaction, the intravenous injection of the drug almost completely suppressing the development of tuberculosis in six animals on which the observations were

made. Tests with rabbits showed that the toxicity of the compound depends on the route of administration.

Chemically, the substance has the properties of a polypeptide, or protein of low molecular weight. It is soluble in dilute acids, and the solution is thermostable. Neutral solutions tend to precipitate, and the compound is slowly labile in alkaline solutions. For *in vitro* tests solutions in *N*/50 hydrochloric acid were used: for injection the pH of these solutions was raised to 4, with, however, the formation of a "haze."

Aureomycin for Pneumonias of Children

In discussing the versatility of aureomycin and its value in the treatment of pneumonia, B. Olshaker and his associates (*New England J. Med.* 241:288, 1949) note that a drug that is effective against both viruses and bacteria embraces a considerably larger antimicrobial range than either sulfadiazine or penicillin (or both combined) and should be effective against the vast majority of pneumonias encountered in the pediatric age group.

In view of these and other considerations aureomycin was used in the treatment of 39 cases of pneumonia in infants and children. In 30 cases of bacterial pneumonias treated with the drug, the results were considered good in 24, fair in 5 cases and poor in only 1. The results were particularly good in pneumococcal pneumonia. Twenty-eight of the thirty patients were afebrile within seventy-two hours of initiation of aureomycin therapy. In 9 cases of viral pneumonia treated with aureomycin, all but 1 case were considered to have been favorably affected by the drug although the response was somewhat less striking than that observed with bacterial pneumonia. Aureomycin was found to be more effective clinically when given orally than when given intramuscularly. No toxic effects were observed in this series except for the occasional occurrence of nausea, vomiting and diarrhea.

Streptomycin Ointment for Barber's Itch

The value of a streptomycin ointment in the treatment of sycosis vulgaris (barber's itch) is indicated in the brief report by H. M. Johnson (*Arch. Dermat. & Syphilol.* 58:741, 1948). In his study an ointment containing 1,000,000 units of streptomycin powder per ounce (28 Gm.) of "Carbowax" 1540 was used. This was vigorously applied before and after shaving and again at bedtime. Fifteen patients with sycosis vulgaris were treated. Duration of infection varied from two weeks to nine months. Cultures of infected hairs produced *Staphylococcus aureus* and *Staphylococcus albus*. In 12 cases there were good results, with clearing in from ten to twenty days. Itching usually subsided within the first week. No relapses were noted in three months. In 2 cases the patients had relapses after ceasing the streptomycin inunctions but remained free from symptoms while using the ointment. No cases of sensitization were noted in this small series. Johnson points out that this antibiotic certainly is not the complete answer to this stubborn follicular infection, but it can be used as another helpful medicament in the therapeutic armamentarium.

Athlete's Foot

In the August, 1949 issue of the British journal, *The Practitioner*, G. B. Mitchell-Heggs discusses the condition commonly referred to as athlete's foot. It is also known as tinea pedis, epidermophytosis, dermatophytosis and dermatomycosis. Accurate diagnosis is important and this can only be made certain by demonstrating the fungus microscopically. Fungus infection may remain in footwear, and skin infected with fungus is liable to bacterial infection, which may give rise to more painful and more serious conditions. In discussing the pre-disposing factors of the condition this authority states that the fungus flourishes in enclosed areas where evaporation is impeded. The feet should be washed frequently and dusted with powder to absorb moisture. Complete cure is difficult, and steps must be taken to prevent reinfection; such steps include sterilization of socks and shoes. Socks which cannot be boiled should be soaked in 3 per cent formalin; the same solution may be used for shoes.

According Mitchell-Higgs the fungicides which may be applied can be divided into two main groups: chemical fungicides, including benzoic acid, iodine, antiseptic dyes, dithranol and chrysarobin; and the natural fungicides —fatty acids—which are found in freshly secreted sweat. In the latter group are the salts of undecylenic acid, proprionic and caprylic acids used together, and glycol diproprionate. Although their fungicidal action is considered to be no greater than that of older methods of treatment, they are less likely to cause skin irritation and secondary eczematous reaction. As soon as the fungus infection is under control, it is best to stop the application of antiseptics and fungicides, and to use bland powder, lotion or ointment.

Further Studies on Khellin

Further studies on ammi visnaga and its active principle, khellin, have been made by G. J. Anrep, M. R. Kenaway and G. S. Barsoum (*Am. Heart J.* 37:531, 1949). They point out that ammi visnaga, known in Arabic as "khella," grows wild in the eastern Mediterranean countries. The local population has been using decoctions of its seeds as an anti-spasmodic since ancient times. So far, three distinct crystalline substances have been extracted and isolated from the seeds in a pure form, khellin, visnagin, and khellolglucoside. Experiments with khellolglucoside have given completely negative results. The action of visnagin appears to be similar to that of khellin except that it is about 30 per cent weaker. Khellin, in previous studies, has been shown to cause relaxation of all visceral smooth muscles and to produce conspicuous dilatation of coronary blood vessels. The minimal effective concentration of the drug causing definite coronary vasodilatation in the heart-lung preparation has been found to be considerably smaller than for aminophyllin and other xanthine derivatives. The effect of khellin is less than that of amylnitrite but much more prolonged. Gradual administration has no undesirable effect on the heart muscle, on respiration, or on the general blood pressure. Experimental studies indicate that, as compared with aminophyllin, the action of khellin on the bronchi and coronary arteries is four times greater.

Clinical studies have also been made, covering several hundred patients. From the results of these investigations, it is concluded that khellin is an effective drug for the continuous treatment of angina pectoris and also for the individual attacks of pain. Suggested oral dose of the drug is 50 to 100 mg. three times daily; by intramuscular injection, 100 to 200 mg. may be given. A few patients complain of a sensation of warmth and mild dyspeptic symptoms or insomnia, but the side effects are few and the bleeding and coagulation times are not altered. The action of khellin, in general, is similar to that of aminophyllin but is approximately four times stronger.

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READERS' QUESTIONS

NON-ALCOHOLIC LIQUID SHAMPOO: Please send us a formula for a non-alcoholic liquid shampoo. Chicago.

The following formula will meet your requirements:

Coconut oil	**10.00**	**per cent**
Potassium hydroxide 85%	**5.38**	**" "**
Sodium hydroxide 95%	**0.50**	**" "**
Glycerine	**12.65**	**" "**
Oleic acid	**14.00**	**" "**
Water	**56.72**	**" "**
Perfume	**0.75**	**" "**

Dissolve the potassium hydroxide in one third of the water. Melt the coconut oil and add the alkali solution in a thin stream with continuous stirring until saponified. Allow the coconut soap to become cold, stand overnight, before proceeding with the batch. Mix the glycerine with half of the remaining water and bring it to a boil; then add the coconut soap in small portions, and stir until dissolved. Dissolve the sodium hydroxide in the rest of the water and add to the soap solution immediately after the coconut soap has dissolved. Add the oleic acid and stir slowly until completely saponified, then perfume. Age, chill to 32°F. and filter.

CHOLESTEROL VALUE: Please let me know the action of cholesterol on the skin when applied externally. I am particularly interested as to whether it will inhibit chapping and as to whether it has any beneficial action when applied to a wound. Trenton.

Cholesterol is one of the most important lanolin alcohols and it provides a softening and emollient action when applied to the skin. It has been used in many hand-care preparations. With respect to its use on wounds, I should like to point out that it has long been an ingredient of dermatological preparations and medicated ointments. Cholesterol is often used to make absorption bases and these form excellent vehicles for medicinal agents. There is a high degree of absorption from cholesterol type ointment bases.

LABELLING ANTI-PERSPIRANTS: What is the procedure, other than putting the active ingredient or ingredients on the label, for marketing an anti-perspirant? Is it necessary to submit the formula to the Federal Drug Department for approval? Albuquerque.

As an anti-perspirant, which affects a bodily function, your product would fall in the category of a drug and therefore the active ingredients must be included on the label. I would suggest that you submit your label to the Food & Drug Administration just to be on the safe side, even though you may be using standard and well known materials. Submission of your label is, of course, absolutely essential if you have any new ingredients in your product which may come under the new drug provision.

LEMON JUICE LOTION: Recently I have been getting a number of requests for a lemon juice lotion, one that really contains lemon juice. Can you give me such a formula? Mechanicsburg.

I think if you will try the following formula that you will get a product that will meet your needs:

Fresh lemon juice	**10 parts**
Water	**90 parts**
Glycerine	**5 parts**
Pectin (100 grade)	**3 parts**
Yellow dye	**sufficient**
Oil of lemon, or suitable perfume	**sufficient**

A product of this sort will naturally require a preservative.

PINE BATH LIQUID: I have been looking for a simple formula for a pine bath liquid. I used a formula containing sulfonated castor oil but it did not work out as well as I had hoped. Someone told me that sulfonated olive oil might yield a better product. Can you give me a simple formula using sulfonated olive oil as the main ingredient? San Francisco.

I think you will find that a satisfactory pine bath liquid can be made from:

Bornyl acetate	**2.0**
Sulfonated olive oil	**98.0**

PIGMENTATION SPOTS: As a subscriber of DRUG and COSMETIC INDUSTRY we note that you have a formula department, and wonder if you would be kind enough to make a suggestion regarding a cream that we are interested in developing. As you know as people age, many times there are dark brown spots appearing on the back of the hands, and we would like a formula which would have a tendency to lighten these spots, thus improving the appearance of the hands. Buffalo.

I doubt that there is any preparation specifically formulated for lightening these so-called senile pigmentation spots. It is possible that a freckle or bleach lotion may be helpful. A preparation of this sort, such as the following freckle lotion, may be worth trying:

Zinc sulfocarbolate	**1.0**	**per cent**
Glycerine	**2.0**	**" "**
Alcohol	**4.8**	**" "**
Tincture of benzoin	**1.5**	**" "**
Perfume	**0.5**	**" "**
Water	**90.2**	**" "**

Dissolve the zinc sulfocarbolate in part of the water. Mix the perfume, tincture of benzoin, glycerine and alcohol together. Mix this solution with the remainder of the water, then add the zinc sulfocarbolate solution. Mix and filter.

Recently, there has been some evidence that hormone creams may have a beneficial effect on these senile pigmentation spots. In this connection, I would suggest that you read the article on hormone creams which appeared in the July 1949 issue of DRUG AND COSMETIC INDUSTRY.

Perfumer's Shelf

Rose Perfumes

In a comprehensive discussion of the chemistry of rose perfumes, S. Gottfried and L. Baxendale (*Perfumery & Essent. Oil Rec.* 40:118, 1949) observe that the rose may well be called the "mother of flowers" as, without it, it would be practically impossible to create a good perfume, and in the compounding of hundreds of flower odors a rose base can be, and often is, included. An undertone of rose can be found in almost every flower, even among those which give a repulsive odor, and the perfume of the rose is so strong and penetrating that its note can be recognized in any perfume where it has been used.

Although the rose industry is, in the main, in the hands of the Balkans, especially Bulgaria, the scientific knowledge has been mainly developed in France. The modern history of the rose in perfumery dates from the time when a method of isolating the essential oil from roses was discovered. The art of distilling roses came from Persia, and the Arabs were responsible for the introduction of the method of distillation to Europe. The Calendar of Harib for the year 961 states that the most suitable month for the making of rose water in Spain is April, and by the end of the sixteenth century oil of roses was known to the chemists and apothecaries of Europe.

These authorities stress that the rose odor differs greatly according to the varieties of roses used and to the method of extraction or distillation of the essential oil and the modern perfumer is called to reproduce all the odors of these numerous varieties of roses. They note that Bulgarian otto of rose is the base of all the finer rose perfumes, and in modern good class perfumes it plays a prominent role. It is used in oriental bouquets and in the preparation of a good violet, and it is indispensable in good carnations and lilacs. In the latter case rose concrete (French rose oil), which is extracted directly from the flowers, can be used. The difference to the perfumer between rose concrete and the distilled Rose Bulgarian (otto of rose) is that the former has a fresh note which is full of sweetness and suavity, and the latter has a warm note which lacks freshness. Both roses can be used in all preparations without causing discoloration in any product. To make a subtle or light odor the French rose (*Rose de Mai*) is superior to the Bulgarian rose, whereas the latter is used in heavy perfumes such as the Oriental type, which are generally associated with vetivert, sandalwood, patchouli, natural musk, vanillin, coumarin, ambergris, labdanum, opoponax, castoreum, civet, balsam—Peru and tolu—styrax and deertongue. Rose de Mai is used in light perfumes such as lilac, sweet pea, muguet, and lily of the valley. Other natural perfumes used for this type are jasmin, tuberose, and violet concrete in small quantities.

There are six constituents of oil of roses which, when used in varying proportions, give within reason an imitation of the various varieties of roses. They are geraniol, rhodinol, citronellol, nerol, linalol and phenylethyl alcohol. Geraniol gives a greenish high-flavoured ethereal and persistent rosy odor. Rhodinol gives a stronger, warmer rosy odor with more of the fatty tone of the heavy red rose or deep red rose. If rhodinol is used to replace geraniol a more delicate and flowery rose note is obtained. Citronellol gives a sweeter, more volatile and more rosy note than geraniol, but it is more fugitive. Nerol is a *cis*-trans isomeride of geraniol. When it is of good quality it possesses a honeylike, rosy, heavy and attenuated odor, but it is more persistent than the other five constituents, and acts more as a fixative. Nerol attenuates the fatty odor of the aldehydes C_9, C_{10}, C_{11}, C_{12}, and is therefore a very valuable constituent of rose perfumes and also of modern aldehyde-type fantasy perfumes. In concentrations of 1-5 per cent nerol gives a more greenish note than geraniol, and in minute concentrations of 0.1-0.5 per cent it accentuates the fresh and flowery notes of jasmin and orange flower (*Fleur d'oranger*). Phenylethyl alcohol is a natural constituent of not only otto of rose, but oils of neroli, champaca and geranium. Its odor is that of dried red rose petals, and it sweetens by its fine note the previously recorded products in rose compounds.

Linalol $C_{10}H_{18}O$. Linalol is found in several different forms and each form has its own particular odor. *Levo Linalol* is extracted from bois de rose (Mexican, Brazilian, etc.), and gives a suave, camphorated, high-flavored rosy odor.

Dextro Linalol, extracted from coriander seeds, has a more jasminated rosy odor, spicier, more attenuated, more ethereal and more camphorated than levo linalol. *Linalool* is extracted from Ho oil and has a very attenuated rosy odor, overpowered by that of camphor, not too pleasant, and is more a camphor or borneol type odor than a true rose odor.

With the exception of linalol, all the other constituents, being primary alcohols, last well; and are very resistant to alkali and free acid in soaps. It is therefore easily understoody why the natural rose essences keep so well and are so compatible. The tertiary alcohol linalol, on the other hand, isomerises in the presence of fatty acids, giving an olfactive incompatiblity.

Gottfried and Baxendale suggest that in order to modify the true rose odors and obtain an artificial rose compound which will be more tenacious, more lasting, more lively, and also to fix the odor, the following compounds may be used as toners in spite of the fact that none of these can be classed as true rose odors: Citronellyl formate, citronellyl acetate, isolanalol, phenylethylacetate, isobutylbutyrate, cinnamyl acetate, rhodinyl acetate, geranyl acetate, isobutyl phenyl acetate, isobutyl benzoate, phenyl ethyl proprionate, farnesol, propyl phenyl acetate, methyl phenyl ethyl glycydate and phenyl ethyl phenyl acetate.

Although the natural oils of rose and some of their alcohols and toners are in themselves reasonably firm, and provide quite good fixative properties, there are some specialized products which in themselves are excellent rose fixatives, such as butyrate of gayol, aldehydes (C_9, C_{10}, C_{11}), and phenyl ethyl salicylate. Equally interesting as rose fixatives are neryl propionate and dimethyl octanyl phenyl acetate.

Condensing considerable chemical information Gottfried and Baxendale state that the odoriferous power of the rose is attained with the maximum of eight atoms of carbon and the presence of the alcohol function, which is indispensable. This power weakens if the chain is extended and becomes more faint with the butyrates and propionates. It magnifies with the phenyl derivatives and it tones with camphor (Ho oil). The ethyl derivatives of the phenyl group give a sweet and pleasing fragrance of the petals of dried roses or dehydrated roses (phenyl ethyl alcohol). If two phenyl groups are united with the elimination of a molecule of water, a crystallized oxide ether (diphenyloxide) of a potent geranium note is obtained. The combination of the groups phenyl ethyl and phenyl acetate attain a warm aroma with a rosy odor and a peachy note or a rose type perfume with a reminisence of beeswax or flower wax.

These workers also discuss olfactive incompatibilities of a chemical nature and present illustrative formulas for rose perfumes for various purposes.

Perfumed Baits

To the growing list of perfume's achievements may now be added their ability to also attract fish. According to a note in *Chemical and Engineering News* (27:2310, 1949), H. S. Landon has found that it is the smell of the bait that lures the fish. He investigated the temptation potentials of over 600 different natural substances that veteran fishermen claim are irresistible to fish. With the aid of the essential oil firm of Magnus, Mabee & Reynard, he worked out 50 formulations of flavoring materials which, applied to a bait or a lure, greatly increase their appeal for fish. These synthetic mixtures are slightly water soluble and contain fixatives and retardants similar to those used in cosmetic preparations to preserve their efficacy. Landon claims some of his formulations have high specific attractiveness to particular species—one mixture for carp, another for bass, still a different one for trout.

Antibacterial Powers of Essences

The antiseptic and disinfectant power of bergamot, orange and lemon essences in aqueous solution against spore-bearing organisms has been investigated by G. Piacentini (*Ann. igiene* 58:1, 1948, through *Chem. Abstr.* 43:4811, 1949), He found that the phenol coefficient of the essences was 0.44. The rough phase of *Bacillus anthracis* was more resistant to the essences than was the smooth phase. However, the antiseptic power of all three essences was greater than that of phenol when tested against the rough phase of a *B. anthracis* strain. Growth of the organism was inhibited by 1:3,200 of either bergamot or lemon essence and by 1:1,600 of orange essence. Growth of *B. megatherium* was inhibited by a 1:2,800 concentration of bergamot essence, 1:3,200 orange essence, and 1:6,400 lemon essence. The corresponding dilution of phenol to produce inhibition of these species was 1:25. Growth of *B. tetani* was inhibited by 1:100 of bergamot essence and 1:25 of orange essence or lemon essence.

The physical characteristics of the essences are also provided by Piacentini. The bergamot essence had a boiling point of 185°, specific gravity 0.88, optical rotation +8° at 37°C., coefficient of viscosity about 0.036 and a yellow-green color. The sweet orange essence boiled at 175-80° C., had a specific gravity of 0.80 to 0.85, an acid reaction, an optical rotation of +95° to + 98° and a yellow-orange color. The lemon essence had a boiling point of 180°C, an acid reaction, an optical rotation of + 59° to + 67° at 20° C., a specific gravity of 0.85 to 0.86 and a yellow green color the essences were saponified by using the following formula:

Sodium oleate (80%)	**31.25 Gm.**
Methyl cellulose ("Tyloso S")	**2.00 Gm.**
Essence	**5.00 Gm.**
Distilled water	**61.75 cc.**

The Umpellifers

In the *Perfumery and Essential Oil Record* for June, 1949 it is noted that the botanical classification, *Umbelliferae* there are many well defined families and innumerable species, among which are found plants with various uses—medicinal, edible and sources of essential oils. Plants of this order used for the production of volatile oil from an extensive list, the better known ones being:-

Fennel, *Foeniculum vulgare*,
Cummin, *Cumium cyminum*
Caraway, *Carum carui*
Coriander, *Coriandrum sativum*
Dill, *Anethum graveolens*

The groups of umbellifers emloyed medicinally include:

Hemlock (*Conium maculatum*)
Asafoetida (*Ferula foetida*)
Galbanum (*Ferula galbaniflua*)
Sumbul (*Ferula sumbul*)
Opoponax (*Pastinaca apoponax*)
Ammoniacum (*Dorema ammoniacum*)

Of these hemlock is definitely poisonous, and although the plant juice (*Succus Conii*) was formerly used very extensively, its employment is not general at the present time for medicines.

Species used as food and for culinary purposes are—

Carrots, *Daucus carota.*
Parsnips, *Pastinaca sativa.*
Celery, *Apinum graveolens.*
Parsley, *Carum patroselenium.*

Both celery and parsely are used for making apiol, and celery "seeds" for flavoring purposes.

Citrus Oils of Palestine

J. Feigenbaum (*Ind. Parfum.* 4:37, 1949) reports that citrus oils are produced in Palestine mainly by the classical and modified sponge and mechanical methods, but distillation is also used. Terpeneless and sesquiterpeneless oils are also produced. About one and one-half to two kilograms of lemon oil is obtained per ton of Eurica lemons. This consists of about 20 per cent *d*-limonene. The average values of the oil's constants are as follows:

Specific gravity	**0.844-0.859**
Specific rotation	**63-70°**
Index of refraction	**1.474-1.478**
Acid number	**0.6-1.3**
Citral content	**2.6-4.1%**
Residue on evaporation	**2.20-3.68%**

About 2.5 kg. of oil is obtained per ton of Jaffa oranges. The constants of the oil range as follows:

Specific gravity	**0.842-0.857**
Specific rotation	**94-100°**
Index of refraction	**1.468-1.475**
Acid number	**0.3-1.5**
Aldehyde content, calculated as C_{10}	**0.95-1.69%**
Residue after evaporation	**4.59.5.96%**

"Marsh" grapefruit yields about one kilogram of oil per ton. This oil has the following average constants:

Specific gravity	**0.850-0.859**
Specific rotation	**91-98°**
Index of refraction	**1.474-1.477**

Feigenbaum also states that some neroli oil is produced from the flowers of bitter oranges (bigarade). The average characteristics are:

Specific gravity	**0.870-0.873**
Specific rotation	**appr. 0.12°**
Index of refraction	**1.468-1.469**
Ester number	**43-52**
Ester number after acetylation	**160-183**

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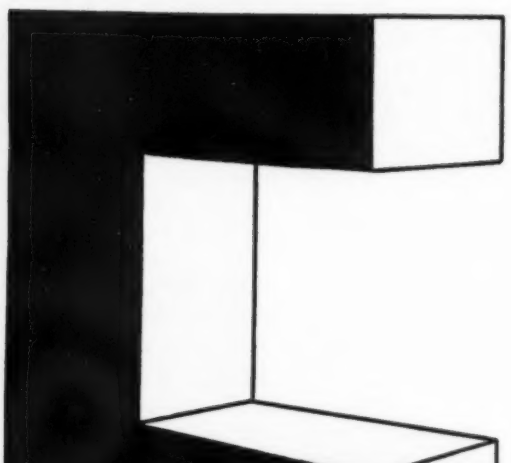

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Abreast of the Markets

Camphor Is Reduced; Crude Glycerin Market Remains Firm. Iodine Spot Price Down Result of New Imports.

A downward price trend, not especially pronounced, was noted in a number of fine chemicals and pharmaceutical materials during September. Synthetic camphor, milk powder, crude glycerin, mercury, and refined naphthalene, were reduced by manufacturers.

Only the USP grades of refined synthetic camphor were affected, reductions of 5c per pound being made in the powder to 53c per pound and in the tablets to 73c for 2,000 pound quantities. In the trade it was thought that lower price trends in the natural camphor market were influencing the synthetic to an extent as some lots of Japanese material have been imported recently at low prices. On the other hand, there has been a lower price average for turpentine which may find reflection in the derivatives from which synthetic camphor is manufactured.

The crude glycerin reduction brought the soap lye grade down 0.5c to 16.5c per pound. At the same time, it was learned that the government of Argentine glycerin to this country has been resumed with the purchase of 200 tons of crude out of an offering of 1,000 tons. Trade reports indicate, however, that the crude glycerin market here may remain firm in the face of Argentine and Russian importations owing to a reduced supply position in this country.

Cuba is another source for glycerin and a new plant being constructed for the Glycerin Corp. of Cuba should be turning out glycerin from molasses at the rate of 20 million pounds a year through a fermentation process. According to a Cuban industrial review issued by the Journal of Commerce, the new plant will use 18 million gallons of blackstrap molasses for the projected annual glycerin output and will cost about $6.5 million.

Larger Molasses Supply

The foremost low-cost raw material for manufacture of alcohol and other fermentation chemicals, blackstrap molasses, will evidently remain in good supply over the rest of 1949. Robert S. Aries, New York consultant, who recently surveyed the sugar industry in Cuba, looks for a world production of some 300 million gallons from the next harvest, of which about 50 million gallons will be seeking a market.

The market price for molasses meanwhile has dropped from the high of 37c per gallon in 1948 to less than 4c, compared with prewar levels of approximately 5c. Dr. Aries, commenting on the reduced demand, cites the lack of new large-scale markets for molasses and the diminished importance of fermentation chemicals in the over-all production picture.

The Economic Co-operation Administration expects to act shortly on a dollar refund to Great Britain covering this year's contract for 70,000,000 gallons of Cuban blackstrap molasses at 3.5c a gallon.

While the money involved is small, major American producers of industrial alcohol have vigorously opposed an ECA dollar grant. ECA Administrator Paul Hoffman answered Senate criticism by stating a dollar reimbursement would be made only if the U.K.-Cuban deal does not force a higher price on American buyers of Cuban blackstrap.

American interests are hopeful that if the ECA turns down the British request to finance the 70,000,000 gallon contract, the British will not go through with the contract, or at least won't take it all.

If the British reneg, 70,000,000 gallons would be dumped back on the market, depressing the price. With some 90,000,000 gallons not needed domestically or contracted for export still left in Cuba from this year's crop, American companies might be able to buy it up—or a good part of it—at one clip and at a saving of a million or more dollars, before the new crop comes in this February.

• Prices quoted in this section were current on the first of this month.

Iodine and Derivatives Go Down

A reduction of the spot price of crude iodine was mainly occasioned by the arrival of approximately 100,000 pounds of this material from Japan. The new price for crude in 1 to 4 drum lots is $1.61 per pound, and in lots of 1000 pounds the price is $1.52.

Leading manufacturers of iodine derivatives reduced prices proportionate to the lower raw material market and are now offering: Iodine USP XIII resublimed crystals in 25 lb. lots at $2.30 per lb., 5 lb. bottles at $2.41; Potassium Iodide USP XIII crystals, granular, and powder, 225 lb. drum, $1.95 per lb., 25 lb. drum, $1.98 per lb.; Iodine Tincture Strong NF VIII, 45 gallon barrel, $3.50 per gal., 1 gallon bottle, $4.08 per gal.; Iodine Tincture USP XIII, 45 gal. barrel, $1.95 per gal., 1 gal. jug, $2.53 per gal.

Citronella and Lemongrass Oils Advance

A strong market prevailed on citronella oil throughout the entire trading period under review, both on spot and in the primary markets. Prices varied as to seller with a range of from 85c to $1.10 spoken of as representing the spread for Ceylon oil. The position of the Ceylon material was reported to be none too good at the source, with sellers there taking an independent attitude. It was said that the European demand for the item was running to good levels and if American buyers did not wish to take the product at prevailing prices, there was always an easy outlet in Europe. Java oil also advanced sharply on spot with the current range now at from $1.80 to $2.10 per pound as to seller.

The spot market for lemongrass oil advanced 10c per pound during September with the range now at from $1.70 to $2.10. This oil showed substantial strength on spot because of a similar situation in affairs at the origin.

Citronella and lemongrass oils imported for consumption within the United States have their origin in more than a dozen countries. Guatemala, the major source of citronella oil in 1948, supplied 38 per cent of U. S. imports. The same country was second

(Continued on page 463)

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Sharp Decline in Peppermint, Spearmint Oil; Patchouli Advances. Ipecac Root Up a Dollar a Pound.

Both natural and redistilled peppermint oil dropped sharply in price during the past month. The former went from $5.50 to $5.15, while the redistilled decreased from $5.65 to $5.50. The material is now in good production and with lower prices reported at the source, the market in New York was following suit. In some quarters it was said that the oil was available in sufficient quantity to warrant still lower prices.

According to the Bureau of Agricultural Economics, the crop prospects on peppermint and spearmint oils as of September 1 were about 9 percent above those of a month ago. All producing states, except Washington, are expected to turn out more pounds of oil per acre than seemed likely on August 1. As of September 1, the forecast was for a 1949 production of 1,485,000 pounds of oil from 44,700 acres to be harvested. This compared with 1,551,000 pounds produced from 41,700 acres in 1948. These figures were well above the ten-year, 1938-1947, average of 1,160,000 pounds from 38,700 acres.

Spearmint Oil Lower Priced

In line with the mint oil situation generally, particularly from a supply standpoint, sellers were able to offer this material on spot at a price range of from $3.25 to $4.10. This material was on the easy side and some sellers thought the market would go still lower.

Production of this oil was expected to be 461,000 pounds, or 35 percent less than last year's crop of 710,000 pounds, according to the September 9 report of the Bureau of Agricultural Economics on production prospects as of September 1. The 1949 production will come from 16,400 acres, as against the 19,700 acres harvested in 1948. At that, the 1949 crop will exceed the ten-year average of 250,000 pounds of oil from 7,660 acres—the ten years being 1938-1947.

Citrus Oils Steady

The prices of the various citrus oils, orange, lemon, lime, and grape fruit, changed slightly during the past month, although the peak of the summer demand among bottlers of soft drinks is coming to an end. The winter freeze in California and hurricane in Florida apparently have not affected the market. The Italian oil, however, still displayed a wide range of quality, and purchasers took precautions to make sure they received a good quality oil.

Patchouli Advances Sharply

The phenomenal jump of patchouli during the current month from $6.50 to $12.50 on the low side and $20.00 on the high side has been attributed to the scarcity of the material at the source. Prices of patchouli have not reached this level since December 1947. As the Christmas manufacturing approaches a strong demand for the material is expected at the critical time when stocks are low. With the price at $20 per pound, depending on the seller and quality of the oil desired, most sellers have been forced to ration their stocks and allocate not over 25 pounds to any one buyer.

Ginger Oil Tight

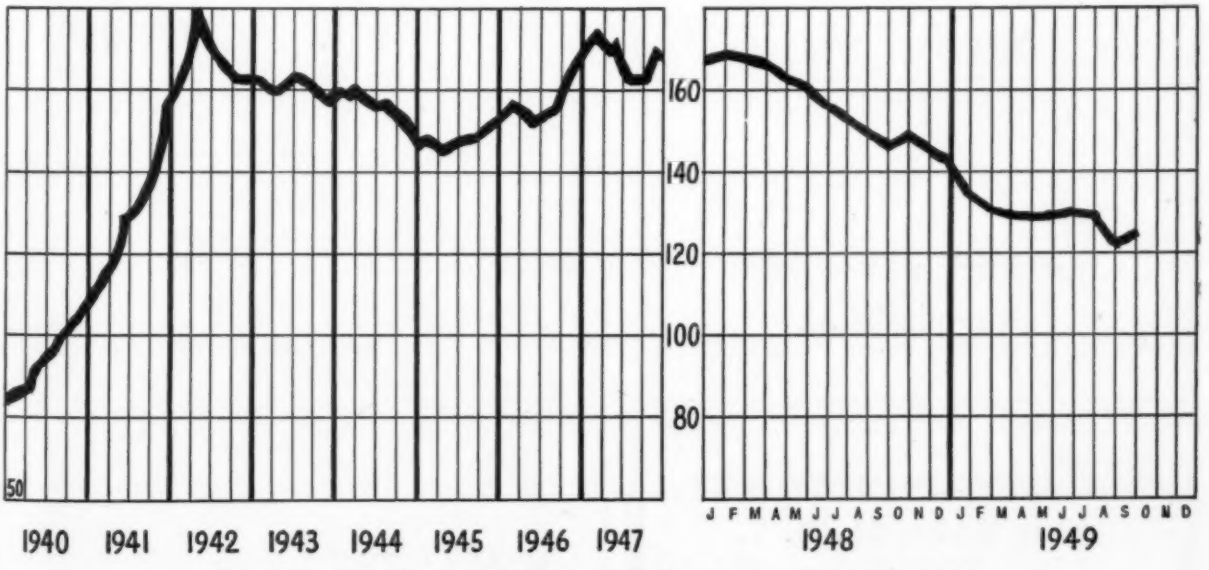
Ginger prices jumped during the month from $13.25 to $21.00 on the inside figures and from $20 to $15 on the upper range. The supply has continued to be tight, and the demand, strong. The situation became such that some sellers restricted orders to old customers.

Brazilian Exports of Ipecac Root and Emetine

Licenses are being granted for the export of ipecac root from Brazil. Inasmuch as supplies exceed domestic manufacturing requirements, it is expected that the granting of these licenses will continue. Exports of ipecac root in 1948 amounted to 11,821 kilograms. The two largest markets for Brazil's ipecac were the United Kingdom (10,699 kilograms) and the United States (831 kilograms). Britain at the present time, in fact, has been buying up all the ipecac root she can find, a factor which has advanced the price by as much as a dollar a pound ($5.25).

Emetine shipments from Brazil in 1948 totaled 461,371 grams. The United States took 136,050 grams, followed

50 Raw Materials—Weighted Price Index. 1926 = 100.



The price index of fifty commodities for September advanced from 120.9 to 122.3.

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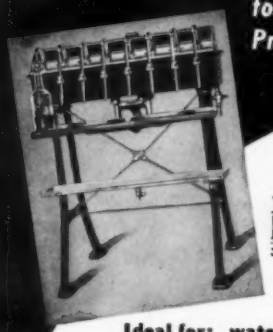

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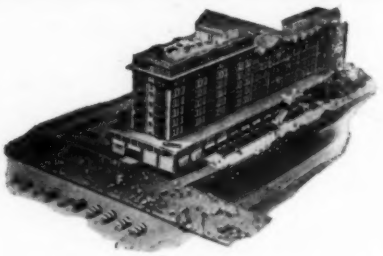

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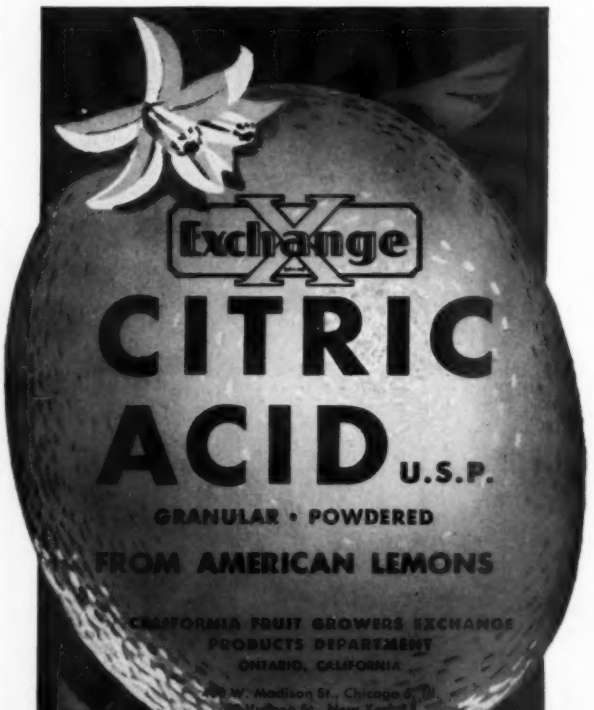


SEPTEMBER PRICE CHANGES

UP

Aloes, Curacao 7c
Anise Seed Star 1½c
Anise, Spanish 7c
Arabic Gum, Sorts, Amber 2c
Arrowroot 2c
Asafoetida 2c
Benzoin Gum, Sumatra 22c
Bergamot oil 45c
Buchu Leaves 3c
Buckthorn bark 2c
Burdock Root 2c
Cananga oil $1.30 rect. 90c
Cascara Sagrada 2c
Citronella, Ceylon 6c Java 17c
Cohosh Root 1c
Coltsfoot leaves 2c
Dandelion Root 3c
Elemi Gum 13½c
Ergot $2.40
Gamboge Gum 10c
Ginger $6.75
Hellebore Root, Black 5c
Henbane Leaves, USP 5c
Ipecac Root $1.00
Jaborandi Leaves 1c
Lemongrass oil 10c
Manna, Small 10c
Menthol $1.00
Mustard, Artificial 5c
Nutmeg 20c
Patchouli oil $6.00
Pennyroyal 80c
Pimento leaf 5c
Rhatany Root 2c
Rhubarb Root HD 15c
Sage, Dalmatian $1.70
Senega Root 25c
Witch Hazel Leaves 1½c

DOWN

Agar Agar, No. 1 10c
Benzoin Gum, Siam 75c
Camphor 5c
Cedar Leaf Oil 30c
Cocoa Butter 7c
Cod Liver Oil 10c
Dill Oil 50c
Hemlock Oil 20c
Lime Oil, Distilled 75c
Lycopodium 5c
Mace Oil, Distilled 65c
Mastic, Gum 35c
Origanum 5c
Passion Flower 2c
Peppermint, Oil Natural 35c
Peppermint, Oil Redis. 60c
Pimento Berry, Oil 40c
Plantago Seed 1c
Psyllium Seed, Black 1c
Rue Oil 40c
Sabadilla Seed 17c
Wormwood Oil 10c
Spearmint Oil 30c
Spruce Oil 20c

by Ecuador 108,950 grams. Mexico, 54,000 grams: India, 48,586 grams; France, 24,600 grams; and Argentina, 23,000 grams: with lesser amounts going to other countries.

Citronella and Lemongrass

(Continued from page 459)

only to India, in shipments of lemongrass oil, supplying 28 percent of the U. S. demand in 1948. First quarter 1949 imports of these oils follow close to the same pattern.

The Oficine Controladora de Aceites Esenciales, an association of all Guatemalan producers of essential oils recently extended special acknowledgement to the Institute Agropecuario Nacional (an agricultural research organization receiving cooperative assistance from the United States Government through the Office of Foreign Agricultural Relations) for technical assistance given essential oil producers. The Instituto is carrying out investigations related to the propagation of citronella and lemongrass, the fertilization of soils devoted to these crops, and improved cultural methods with particular reference to crop rotations.

The Guatemalan Customhouse reports that during the calendar year 1948, exportations of essential oils from that country aggregated 876,443 pounds, with a declared value of $850,465. Of these shipments, 852,861 pounds or 97 percent of the total, were consigned to the United States. Shipments of essential oils from Guatemala are expected to exceed 1 million pounds in 1949.

Production of citronella and lemongrass oils during 1948 in Guatemala was more than double that for the previous year. This increase occurred in spite of a heavy decline in prices which was fully anticipated by growers who had recently entered the essential oils business or who had expanded previous plantings.

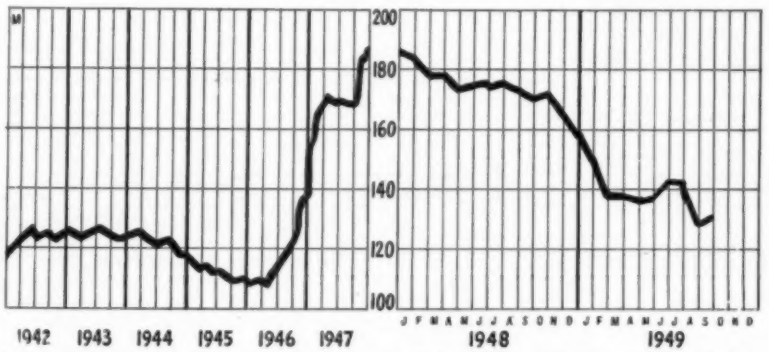
Production of lemongrass oil in India from July 1948 to January 1949 is estimated at 300 long tons, compared with 375 tons in the like period of 1947-48.

Exports of lemongrass oil from South Indian ports during 1948-49 (April-March) totaled 760,902 pounds, valued at 2,405,877 rupees, compared with 760,902 pounds, valued at 3,654,148 rupees, in the preceding 12 months. In both years, the United States and the United Kingdom were the leading purchasers. (One Indian rupee equals approximately US$0.30.).

Honduras exported 60,000 pounds of citronella oil in 1948. Approximately 4,800 pounds are utilized annually in the output of soap, chiefly to give strong laundry soap a more pleasant odor.

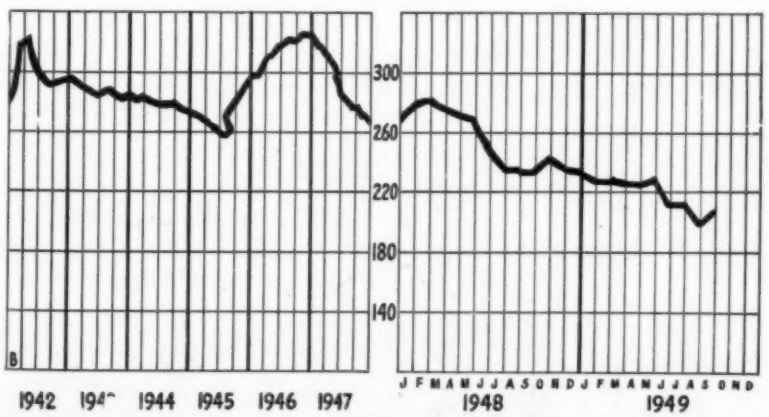
A high of 800 acres under citronella grass was maintained during the war when the oil brought $4 per pound in the United States market. Current plantings aggregate 457 acres, and the world price has fallen to a much lower

15 Medicinal Chemicals—Weighted Price Index. 1926 = 100.



The medicinal chemicals index advanced slightly from 129.5 to 130.6. Iodine dropped 19c per pound, menthol advanced $1.00 per pound.

15 Botanicals—Weighted Price Index. 1926=100.



The botanicals index advanced from 203.4 to 209.9. Agar was lower; aloes, buchu, cascara, ergot, ipecac, and rhubarb advanced.

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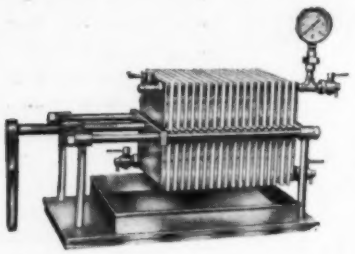

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figure.` Approximately 15 acres will be used in obtaining seed for an additional 200 acres which is to be put under cultivation next year.

Total annual yields per acre from three harvestings range between 195 and 230 puounds of citronella oil under favorable farming conditions.

Dill Down

The inside price of dillweed decreased 50c from $6.75 to $6.25 during the month. Demand for the material is expected to increase in the near future during the pickling season.

Menthol Up

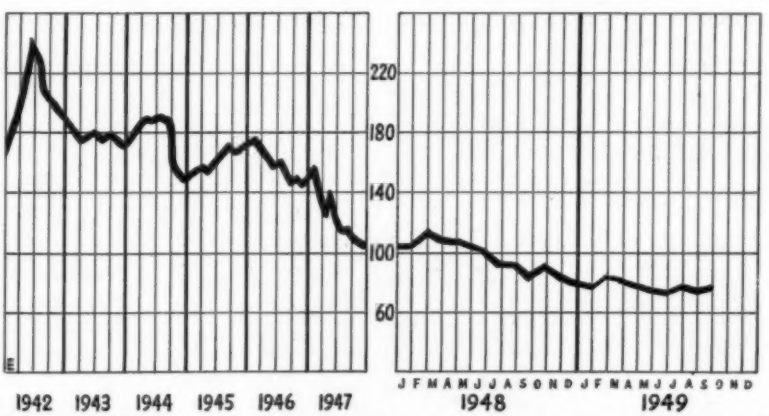
This market held to its strong position of recent weeks, and spot material was quoted at $12 per pound. At present there was no positive indication of what direction the market might eventually go in the immediate future as a result of currency devaluations in the silver area.

In some quarters the feeling was expressed that the British would not be inclined to buy Brazilian menthol with their devalued pound at the price level of $25 per kilo as they had done in the past. If such were the case, there might be a weakening tendency develop somewhat in advance of the time when new crop menthol comes on the market. Meanwhile, buyers were adopting a wait and see policy. Current price levels for Brazilian material were at a high for the year. Demand was quiet, and trading confined to limited quantities.

Exports of menthol from Brazil in the first quarter of 1949 amounted to 69 metric tons, valued at 19,593,000 cruzeiros, the United States taking 40 tons, valued at 11,655,000 cruzeiros. In the corresponding months of 1948, a total of 24 tons, valued at 7,537,000 cruzeiros, were exported. Of this amount, the United States took 11 tons, with a value of 3,073,000 cruzeiros.

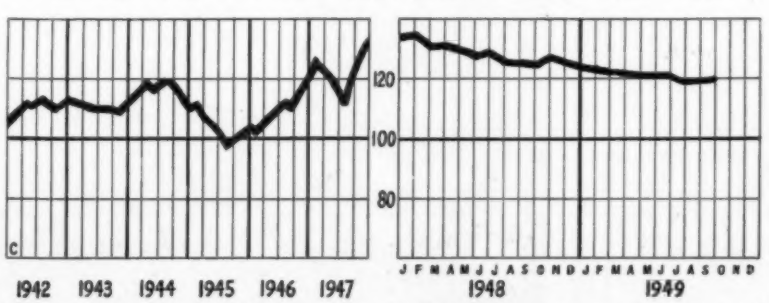
In the last quarter of 1948, 31 metric tons of menthol, valued at 10,345,000 cruzeiros, were exported from Brazil. The United States purchased 8 tons, with a value of 2,215,000 cruzeiros (1,000 cruzeiros equals US $534).

15 Essential Oils—Weighted Price Index. 1926 = 100.



The essential oils index advanced fractionally from 82.0 to 82.7. Bergamot, cananga, and citronella were higher; peppermint declined.

25 Cosmetic Raw Materials—Unweighted Price Index. 1926 = 100.



The cosmetic raw materials index advanced slightly from 120.5 to 120.9. Menthol advanced.

Domestic Quicksilver Production Down

Quicksilver was produced at domestic mines in the second quarter of this year at a rate that prevailed in the first quarter, or at an annual rate smaller than in any other year covered by the production record beginning with 1850, according to the Bureau of Mines.

Consumption dropped notably from the levels maintained for well over a year, and was the smallest recorded since the July-September quarter of 1947, approximating the rate for that quarter.

Though well below war and postwar rates, consumption of the metal continued to compare favorably with its prewar use. Imports established a new high record for a three months' period. Most of the metal imported was destined for the stockpile, however, being material purchased in Europe by the ECA with counterpart funds accumulated there and earmarked for the purchase of strategic materials. Exports continued to be equal to less than one percent of imports. Average price quoted for the second quarter of this year was $6 per flask less than in the first quarter, according to the bureau.

Carnauba Wax Firm

Shipments of carnauba wax from Brazil were slightly off. Trading was light for replacement. Stocks on spot were closely held. The price of No. 1 yellow ranged from $1.13 to $1.15 as to quantity.

Brazil's exports of carnauba wax in the first quarter of 1949 declined in value to $3,646,300 from $4,614,150 in the fourth quarter of 1948. This product was eighth in value among the 10 principal commodities exported in the first quarter of 1949.

Carnauba wax was fourth among Brazil's leading exports to the United States in the first quarter of 1949; the United States took 75 percent of total exports of this material in that period—1,871 metric tons, valued at $2,662,800.

Ergot in Nominal Supply

The severe drought in Spain has produced a diminishing supply of ergot which can be had only in nominal quantities at approximately $3.25 a pound, an increase of $1.40 over the previous month.

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Industry's Books

Technic of Medication, by Austin Smith, M.D., C.M., M. Sc., Director of the Division of Therapy and Research, Secretary, The Council on Pharmacy and Chemistry, The American Medical Association, 255 pp., J. B. Lippincott Co., Phila., $4.

This is a book of practical usable information designed to aid the physician in the performance of his daily tasks, aid in de'ermining the need of medication, choice of route of administration, such as oral, rectal or genito urinary, possiblee ffects of proposed therapy, and desirable supporting measures. Each discussion shows the physician how best to use all possible forms of treatment in order to elicit the most favorable response. Warning is given of the untoward effects for which the physician must be on the alert, and emphasis is laid on the importance of individualizing treatment for the patient whenever possible. Technic of Medication is a practical working guide to expediency, efficiency, and economy in drug administration.

Organic Reactions, Volume IV, 428 pp., John Wiley & Sons, Inc., New York, $6.

This is the fourth volume of a series which was started in 1942. The intention is to provide a compilation of all the important synthetic chemical reactions. Each chapter in the series provides a comprehensive survey of a particular reaction and includes a general discussion of method, modifications, examples of applicability, special precautions, a detailed description of the procedure, expected yields, and other pertinent data. Tables have been compiled and are included in each chapter, listing compounds which have been prepared by or subjected to the reaction under discussion in that chapter. The editors and authors of the Organic Reactions Series are all outstanding personalities in the field of chemistry. Roger Adams, editor-in-chief, is Head of the Chemistry Department at the University of Illinois, while the other contributors are equally distinguished in both academic and industrial circles.

The Science of Everyday Health, by Ralph E. Blount, 415 pp., Illus., Allyn and Bacon, Boston, $2.

This book presents the facts of physiology, anatomy, and hygiene for the young student. It is a smile, practical guide to health habits for young people of secondary school age. It is an organized course in public and personal health, with healthful living and healthful thinking its dominant theme.

Beauty Culture, Its Science and Practice, by Josephine Cherioli, Circuit Instructor of Cosmetology, Wisconsin Schools of Vocational and Adult Education, Madison, 305 pp., The Bruce Publishing Co., Milwaukee, $3.

The author has prepared this course to be used as a textbook which will lay a foundation from which to build a complete practice. The related information has been written with an effort toward concentration on that part appropriate to the beautician. The text is intended as an aid to students and apprentices; to fill the gaps for those who have not been previously instructed in a complete course of training; as a refresher course for those already in the occupation, and for those who are studying for state board examinations. The subject matter is divided into four sections: the sciences; practice on hair; practice on skin; and business practices. Numerous illustrations are used throughout the text.

A Catalogue of Insecticides and Fungicides, compiled by Donald E. H. Frear, Ph. D., Professor of Agricultural and Biological Chemistry, The Pennsylvania State College, Volume II—Chemical Fungicides and Plant Insecticides, 153 pp., The Chronica Botanica Co., Waltham, Stechert-Hafner, Inc., New York, $5.50.

This compilation, prepared by the author of "Chemistry of Insecticides and Fungicides" lists over 10,000 chemicals, plant species, and miscellaneous materials which have been tested for the control of insects and plant diseases. Each tested material is listed separately, with its chemical name, synonyms, and complete formula. In addition, the results of the insect and fungus tests, and one or more literature citations are given for each material. Volume I: Chemical Insecticides. Condensation products. Miscellaneous insecticides. Patent index by countries of origin and by number. Author index and literature references. 204 pages $6.50. Volume II: Chemical Fungicides. Condensation products. Plants tested as fungicides. Miscellaneous fungicides. Plants tested as insecticides. Patent index by countries of origin and by number. Author index and literature references. Price $5.50. A limited number of copies of these two volumes, bound together in morocco, and interleaved with blank paper, will be available shortly at $22 50.

The Use of Isotopes In Biology and Medicine (A Symposium) 445 pp., The University of Wisconsin Press, Madison, $5.

The use of radioactive isotopes as tools for research is one of the most promising aspects of the staggering development of atomic energy. Here nineteen of the nation's prominent scientists, all leaders in modern isotopic research, report the advances that have been made, particularly with respect to the biological and medical sciences. The first group of papers consider certain historical aspects of the subject, the preparation of stable and radioactive isotopes, present day techniques of quantity production and distribution, and the outlook for greater availability in the future. A distinguished group of chemists and biochemists present papers on the detection of stable and of radioactive isotopes, the measurement of radioactivity, the preparation of compounds containing isotopes, and summaries of recent studies on the metabolism of proteins, carbohydrates, and lipids. Physicians and medical investigators will welcome especially the papers summarizing recent investigations of the metabolism of minerals and of iodine, the tracer techniques in medical research, certain therapeutic uses of radioactivity, and the hazards incurred in the use of radioactive isotopes.

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Colloid Chemistry by Harry Boyer Weiser, Professor of Chemistry at The Rice Institute, Second Ed., 444 pp., John Wiley & Sons Inc., New York, $5.50.

The philosophy that guided the writing of this book is that colloid chemistry is a well established branch of chemistry in its own right, and not a chapter lifted from physical chemistry, even though an understanding of the theories and applications of the subject requires a well-rounded background of mathematics, physics, and physical chemistry. In the preface the author states that his threefold purpose is (1) to acquaint the student with the foundations of colloid chemistry and with the role that the classical experiments have played in the development of the modern theories and applications of the subject; (2) to formulate systematically and to correlate critically the theories underlying colloidal chemical behavior; and (3) to illustrate the widely diversified applications of the principles of colloid chemistry in such fields as the industrial arts, agriculture, and biology. The subject is presented systematically with comprehension and critical analysis. Reading is facilitated by frequent section and paragraph headings. Practical applications are employed whenever possible to illustrate the principles of colloid chemistry. The changes in the second edition include new applications of the science to biology and industrial arts, and a presentation of the growing usefulness of colloid chemistry's principles to most fields of human endeavor.

A Business Of My Own, by Arthur E. Morgan, 183 pp., Paper Cover, Community Service, Inc., Yellow Springs, Ohio, $1.

This book is based upon first-hand information on small businesses secured during the author's five years of travel in this country and Canada. Several hundred businesses are described or referred to, though some of the most interesting chapters are on the place of small business in American life. Also, the book shows how small private business can be a way of pioneering toward a better society. Many books on small business lead young men into businesses where many must fail for over-competition, as in appliance shops and grocery stores. This book does not go over the old ground of starting a store or gas station, but tells of scores of businesses no more difficult to undertake, actually needed, and providing opportunity for widely varied abilities.

Malignant Disease And Its Treatment, by Radium, by Sir Stanford Cade, K.B.E., Surgeon Westminster Hospital, Mount Vernon Hospital and Radium Institute, Vol. I, Second Ed., The Williams & Wilkins Co., Baltimore, $12.50.

The first edition of this work was published towards the end of 1940 and most of it was destroyed within a short time by enemy action. The author, however, undertook the task of preparing a new edition early in 1946. It was decided to split the original rather bulky volume into four smaller ones, of which this is volume I. The material has been brought up to date; technical details, especially in connection with the physical aspects of radium therapy, have been revised by Dr. C. W. Wilson, Ph.D., M. Sc. New chapters on Tissue Culture, by Dr. F. G. Spear, and on Reticulosis, by Dr. F. M. Allchin, have been added. Sarcoma of soft tissue and primary malignant tumors of bone receive much more detailed consideration. It will be a considerable time before artificial radio-active isotopes are available for routine clinical use. And the same may be said of the many million electron-volt potential units. It is clear that chemotherapy and the use of endocrines will add much in the near future to the clinician's armamentarium in the battle against cancer. But in the meantime a detailed clinical and pathological account of cancer as a disease is needed, whatever the therapeutic measure employed; and radium remains a proved remedy of value in some sites. The object of these volumes, therefore, is to provide firstly an account of the disease, secondly to indicate the choice of treatment, and thirdly to give details of those methods of radium therapy which time has shown can be used with a considerable degree of success.

Diabetes and Its Treatment, by Joseph H. Barach, M.D., F.A.C.P., Associate Professor Medicine, University of Pittsburgh, 326 pp., Illus., Oxford University Press, $10.

Twenty-eight years ago insulin appeared on the medical scene. Because of the author's laboatory background, he was one of the early group of workers privileged to use insulin during the period of clinical trial. All the developments in the study of diabetes since that time have convinced him that the man who knows diabetes and how to treat it properly will be completely equipped to deal with almost every other of the so-called chronic, systemic, or nutritional diseases, as they are known in our day. This book offers the general medical man a clinical approach to an understanding of the disease and its treatment. The section on diets and daily menus is a particular attempt to simplify this problem for doctor and patient. Contents: History of the Disease. Description of the Disease and its Background. Clinical Diagnosis. Laboratory Diagnosis. Clinical Pathology, Complications, and Their Treatment. Diseases of the Extremities. General Surgery in Diabetes. Diabetic Coma and its Treatment. Pregnancy in the Diabetic. Diabetes in Childhood. Diabetes of Old Age. Prevention and Prognosis of Diabetes. Treatment. Principles of Diet. Insulin. Continued Control of the Disease and Patient.

Synthetic Perfumes, Their Chemistry and Preparation, by T. F. West, Ph.D., Director, Developmental Division, Drug Houses of Australia Ltd., H. J. Strausz, Dr. Phil., Consulting Chemist, and D. H. R. Barton, Ph. D., Imperial Chemical Industries Research Fellow Imperial College of Science and Technology, 380 pp., Edward Arnold & Co., London, $17.50.

Although this book is written primarily from the organic chemical point of view it includes notes on the use of the compounds considered together with such physical constants as appear useful to the analyst in checking the purity or identity of given samples. The chemistry of synthetic perfumery compounds occupies a unique place in that rapid development of the knowledge of organic compounds which took place during the last quarter of the nineteenth and beginning of the twentieth centuries, and for that reason the authors have included a brief historical review in appropriate cases. While it was impossible to include in this work each of the numerous synthetic chemicals used in perfumery, the authors have selected a sufficient representative group to cover the more widely utilized odorous compounds. Contents: Parts I—Introduction. II—Hydrocarbons. III—Alcohols. IV—Aldehydes. V—Ketones and Lactones. VI—Ethers. VII—Esters. VIII—Phenols. IX—Nitrogen Containing Compounds. X—Miscellaneous Compounds. Addendum—Appendix (Trade Names)—Abbreviations—Literature Abbreviations—Authors Index—Subject Index.

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Pressure Propelled Products

(*Continued from page 398*)

and 46 per cent of Freon-11 gives a pressure of about 37 pounds gage at 70°F. in an aerosol solution.[12]

The Genetrons, produced by the General Chemical Division, Allied Chemical and Dye Corporation, New York, N. Y., are described as the first dispersants specifically designed for aerosol use. One of these compounds, trade-marked as "Genetron 102J," is said to offer greater economy and increased efficiency in aerosols formulated with it.

A number of factors must be taken into consideration in the development of aerosol formulations. Those interested in pressure propelled products must have a clear idea of the nature of the product desired and understand the properties and limitations of the propelling gases and other components. A very important consideration is the compatibility of the several constituents, because in order to be propelled from the container, the active agent must be compatible with the propellent. Very pertinent in this connection is Goodhue's[12] statement that "The aerosol method works best with small amounts of very potent materials because a higher percentage of liquefied gas remains to produce the dispersions." While this statement was made in connection with insecticidal aerosols, it obviously holds true for many other types of propelled products.

It is often quite easy to settle the question of compatibility by simple tests. In the case of the Freons for example, this can easily be determined by mixing a small portion of the active product with carbon tetrachloride; the latter having solubility properties similar to those of the propellents. If one liquid results, the components are miscible. If two layers are formed, the constituents are not compatible and the product is not suitable for use in an aerosol dispenser.

Often, however, incomplete miscibility can be overcome and a homogeneous product formed by the use of mutual or auxiliary solvents. Indeed, expert opinion[12] holds that, even though a supplementary solvent is not so important in a low pressure formulation as in a high pressure aerosol, it is better to dissolve the solids and other active ingredients in an auxiliary solvent so that foreign matter can be removed by filtering. In addition, solutions are easier to handle during the filling process, and suppliers are also enabled to sell ready-made solutions of the active ingredients.

New aerosol formulas require thorough evaluation. The following are among the tests suggested[23] for this purpose: (a) Accelerated aging tests to ascertain corrosion of iron or other metals used in the containers, decomposition with the formation color, tar or precipitates, and chemical reaction between the constituents, (b) Action on different types of materials, including rubber, plastics, paints and others by the propellent and the active agents, (c) Solvent power for the active ingredients, (d) Particle-size distribution of the aerosol, (e) Relationship between the formula and the type of

nozzle on the dispenser, (f) Irritation and odor of the dispersed aerosol, and (g) Tests to avoid possible manufacturing difficulties.

In line with these tests is Peterson's[18] suggestion that, in developing an aerosol formulation, the properties and characteristics of each ingredient be carefully studied in order to obtain the best performance. To save time and trouble he feels that it is generally advisable to discuss matters with the various suppliers because they are usually familiar with the problems involved and have a store of laboratory and field experience upon which to base their recommendations. Some experts[17] go even further and suggest that, rather than carry out the development work himself, the prospective producer consult with a "loader" who has the equipment for custom filling the new products.

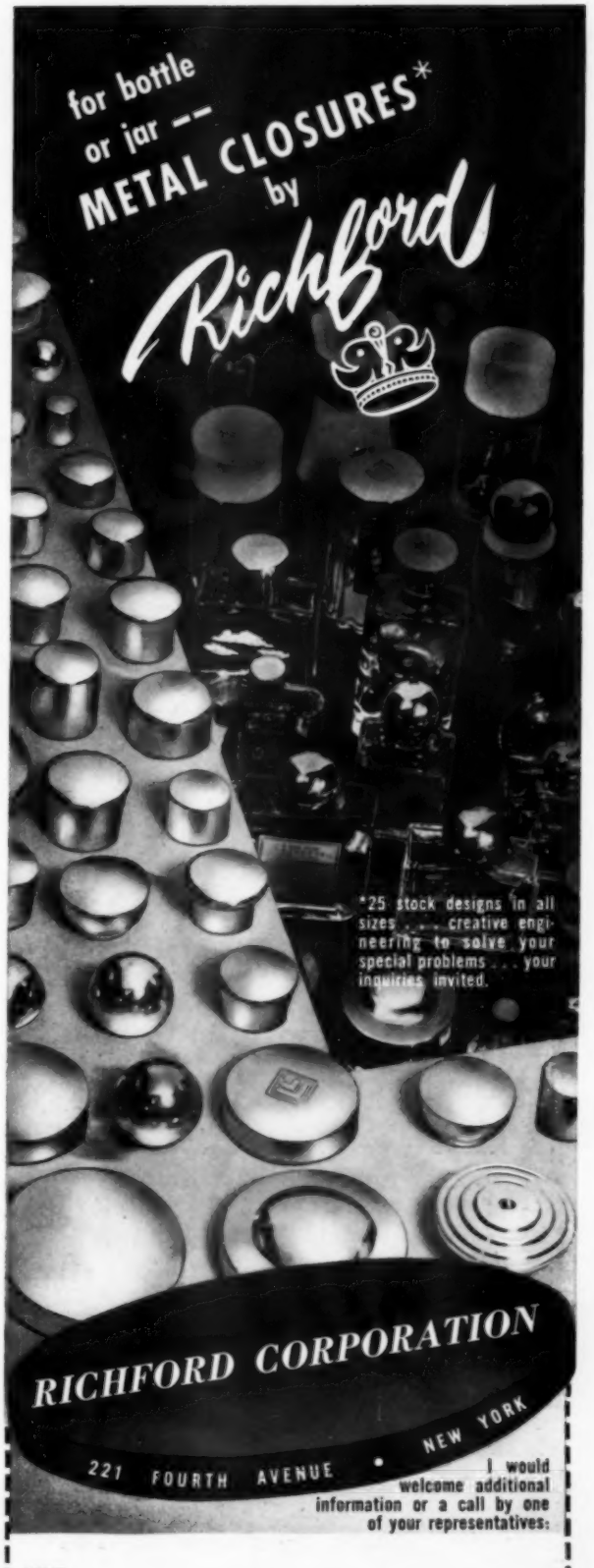
It is a good indication of the present status of the aerosol products industry and its future outlook that loading facilities and the number of custom fillers are on the increase. Organizations have been built up which function solely for filling aerosol containers for specialty companies.[34]

These custom fillers will probably command an important position in this relatively new field because the packaging of pressure propelled products requires special equipment and considerable "know how." The big problem in filling the containers lies, of course, in the propellent gases. In one method, the active, non-volatile ingredients are measured into the open containers, the lid sealed on, and then the propellent is forced in through the dispensing valve. In the other procedure, the propellent is cooled below its boiling point and the liquefied-gas is then handled like any other fluid and can thus be put into the container along with the active agents. This filling by refrigeration is considered desirable because it permits the use of high speed automatic equipment very similar to that used in other industries.

At present a number of products which are of interest to drug and cosmetic producers are available to the public. These include deodorant, germicidal or medicated aerosols for inclosed spaces, toilet water and perfume sprays for personal use, and a suntan simulant.

Considerable work has gone into the formulation of air deodorizing aerosols and a number of interesting developments have appeared.[35] Aside from the use of masking perfumes which cover objectionable smells, a number of products are based on compounds which are said[36] to have a true odor-neutralizing action. It is claimed that these newer compositions for aerosol dispersion remove malodorous molecules by absorption and adsorption, rather than by merely a masking action.[14] Aside from a rather well established household market, the aerosol type of air deodorizers have great sales potentialities in hospitals, hotels, waiting rooms, laboratories, kennels, and the like.

Another product, which is rather unique in that it is sold in a refillable dispenser, provides an air odor neutralizing action plus the antibacterial effects of propylene glycol and triethylene glycol. More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specialized in that it is being sold for reducing airborne bacteria in homes, hospital sickrooms and the offices of doctors and dentists, is a pressure propelled product based on the antibacterial action of triethylene glycol.[27]

Of related interest is an aerosol apparently medicated with a benzoin compound to relieve respiratory conditions. Having received popular acceptance during the winter of 1948-9 as a rather expensive, high pressure product, the item is said to be undergoing conversion for sale as a lower pressure propelled product. Other organizations are readying similar preparations which will create a medicated atmosphere designed to relieve certain symptoms of colds and related conditions.

Perfumes and toilet waters packaged in aerosol type dispensers are also on the market. Although one such product is being sold in a metal container, Rhodes[26] feels that a glass package will be a better selling item. This problem is being studies by some glass companies. Many perfumes are freely soluble in mixed Freon propellents, which are practically odorless and thus do not affect the perfumes.

Of specific interest to cosmetic producers is an aerosol dispenser containing a mixture which will impart a suntan color to the skin. This permits the application of a film of color of almost any depth desired without the use of any equipment other than the dispenser itself.[15] According to one report[25] a leading producer of pressure propelled products is about ready to market a suntan lotion in an aerosol type container, thereby eliminating the fuss and mess of applying this skin protectant.

Indeed, reports from a number of reliable sources indicate that quite a number of new and interesting pressure propelled drug and cosmetic products are being readied for the consuming public and many more are in the offing. As indicated in the statement of one research group[17] the following types of products offer possibilities, with proper development, of packaging in pressure containers: antiseptics and other medicinals; cosmetics, lotions and creams; disinfectants; fungicides and germicides; and hair dressing, shampoos and lacquers.

Displaying considerable enthusiasm, Burt[16] points out that "By merely thumbing a valve, tomorrow's housewife may rid a room of insects or odors, squelch a kitchen fire, treat a wound or athletes foot, wax her dining table, spray her throat, shampoo or lacquer her hair." Discussing some of the investigations being made, he notes that workers have found that aerosol wound dressings not only offer the emergency advantages of instant application, but also afford a decided economy over ordinary liquids, salves and powders. To this might well be added the fact that application of a medicament to a wound, burn or infection by the aerosol method avoids the trauma and possible contamination associated with manually applied dressings and drug preparations. Thoughts along the same lines indicate that similar products should prove of great value in the field of dermatology.

Aside from the aerosol mist and wet spray types of

products, alteration is also being devoted to the pressure-produced lathers. Whipped cream, produced by a propellent of nitrous oxide and carbon dioxide has proved successful. It points the way to similar products such as shaving creams and various medicinal and similar creams.[29] Also being tackled, and apparently with a measure of success,[30] is the problem of the refillable aerosol type dispenser.

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New Pharmacopoeia Revision Head

(Continued from page 389)

with U. S. P. activities embraces the U. S. P. XI, XII, XIII, and XIV.

Dr. Miller is a member of the American Society for Pharmacology and Experimental Therapeutics, the Biometrics Society, the American Pharmaceutical Association, Sigma Xi, the Medicinal Chemistry Division of the American Chemical Society, the American Association for the Advancement of Science, and the New York Academy of Sciences.

The Ebert Prize of the American Pharmaceutical Association was awarded Dr. Miller in 1940 for research on the assay of digitalis which was carried out with his associates in the Food and Drug Administration. This research pioneered the application of statistical methods of analysis in biological assays in this country.

He is the author or co-author of more than 25 published scientific papers, covering various phases of pharmaceutical research. These may be found in publications such as the following:

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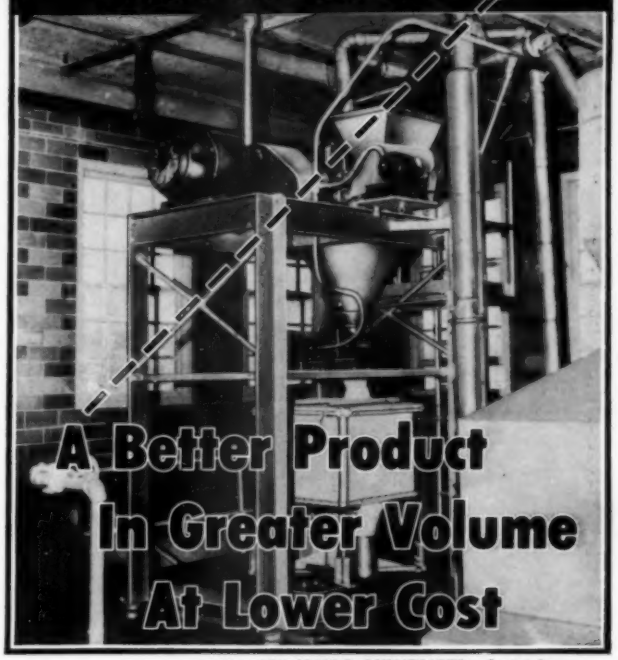

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Dr. Miller has recently been appointed Associate Editor of the Journal of Pharmacology and Experimental Therapeutics.

The responsibility of appointing a Director of Pharmacopoeial Revision is placed in the hands of the Board of Trustees by the By-Laws of the U. S. P. Convention. The Board has been fully aware of this important obligation ever since the By-Laws were changed in 1942, and has given it considerable thought and serious attention for the past several months. The advice and suggestions of the U. S. P. Convention Nominating Committee were requested and these were subsequently given due consideration in arriving at the final decision. Numerous names were presented for consideration and extensive sketches were prepared for each individual whose name had thus been submitted, the Board reaching its final decision only by a gradual process of elimination.

Supervision---Office and Field

(Continued from page 393)

rough spots that may exist in the current program. Such conferences are costly when the representative must be brought in from distant points, but it is money well invested. It insures teamwork and the utilization of efforts to the greatest possible degree. It also permits Management to have better control of their salesmen.

There is another phase of field supervision that falls upon the shoulders of top Management. Top Management may be the sales manager of a small sales force or it may be the sectional manager in large sales forces. This phase is a systemic plan for seeking out and correcting gripes or grievances. Where there are insufficient outlets for salesmen's complaints, the morale is almost inevitably poor. This in turn leads to low sales volume, to excessive turnover, to uncooperative and anti-management attitudes and activities. Paradoxically, the chief causes of poor morale in a sales organization are not always such major matters as compensation, hours and the usual fringe issues, they are instead the many annoyances, frustrations and disappointments, trivial and otherwise, that they encounter every day on the job.

Often the source of poor morale is the saleman's personal problems. They may bear no direct relationship to his work yet affect it greatly. Living conditions, domestic difficulties, debts, family sickness—each of these conditions may be a distraction, a source of worry and seriously destructive to morale. Many sales managers believe that they personally have no special need for grievance drainage procedures. They say that their salesmen are free to bring their grievances to them where they will be assured a fair hearing and receive prompt attention if this is warranted. Such executives

are very proud of what they term their open-door policy.

All too often the open door is only a phrase. The executive surrounds himself with a battery of secretaries and assistants and even discourages direct contact by his very manner. You will find that just a half hour interview once or twice a year, possibly made during a Divisional Sales Meeting will very often save the man. During his interview, top Management attempts to learn from the representative—

1. What he likes and dislikes about his work in general.
2. Does he have any questions or are there any misunderstandings about compensation, territory, etc.
3. Does he need additional training or help.
4. How is he getting along with his supervisor, associates and customers.
5. Does he have any problem off the job such as transportation, sickness, financial difficulty, disapproval of the job by his family, etc. which make it difficult to adjust to his work.

Such an interview, if properly conducted, not only builds morale, but is effective in reducing turnover. This is because it is in effect an exit interview held with the salesman before he has definitely made up his mind to leave. It is usually easy to salvage a man under such conditions. One of the chief merits of these interviews is that it provides the salesman with an opportunity to talk out his dissatisfaction and complaints. In a surprising number of cases this is all that is necessary. No further action is required. Even with the chronic malcontent the fact that he can tell his troubles to a sympathetic listener who represents Management may reduce the strength and urgency of his anti-company attitude. Once again these interviews also impress the representative that top Management feels he is important. Remember—he wants recognition; he wants to be apprciated; he wants Management to respect his self-respect.

Summarizing, field supervision should include:

1. Limited number of men to a division so that each representative can be contacted every 6 to 8 weeks.
2. Surveys made in each territory to evaluate effectiveness, also shortcomings of each representative.
3. One-day divisional sales conference during the second week of each detail program to insure uniformity in methods of promotion.
4. Top Management giving representatives interviews for grievance drainage.

To anyone who recognizes that the chain of Management is no stronger than its weakest link, the supervisor's importance is self-evident. Those interested in having an organization serve as a two-day channel through which instructions, information and ideas flow freely and with growing effectiveness both down from top Management to the salesman and up from the salesmen to top Management will not underestimate the importance of the supervisor.

From the ranks of salesmen comes all supervisory

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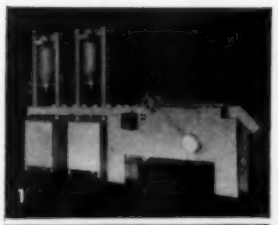
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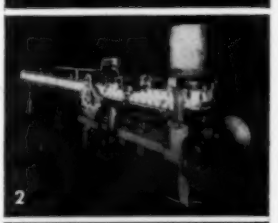
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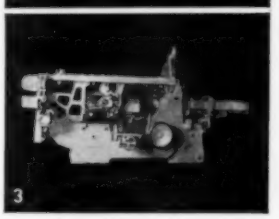
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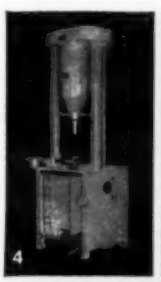
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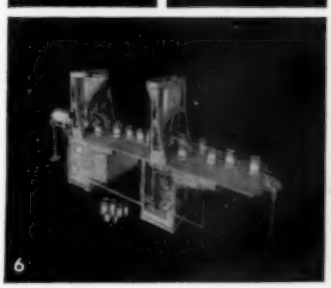
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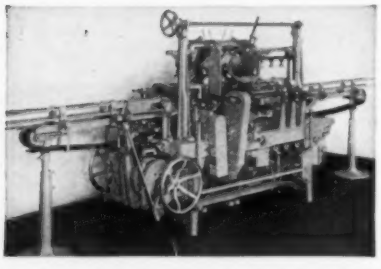
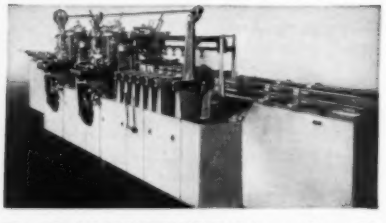


The Model 65 BEE-LINE delivers 30 to 65 labeled containers per minute.



The Model 135 BEE-LINE delivers from 60 to 120 containers per minute.

The WORLD **BEE-LINE** Labeler conducts your glass containers, however light or delicate, straight down a bee-line without traffic jams, detours or collisions. Gently they are dressed up and ready to go out in public and do you proud, with body labels, front or front-and-back, and neck labels if desired, precisely, firmly and smoothly applied to a wide range of container sizes and shapes.

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talent. The steady progress of these men up through the organizaton builds morale as nothing else will. Select as supervisors men who understand how to train salesmen to sell—not necessarily the way they sold, but the way the home office decides the product should be sold under changing conditions. In addition to astute salesmanship and managerial ability, the cardinal qualities of a supervisor are industry, perseverance, willingness to accept responsibility, initiative, self-reliance and loyalty.

The high calibre of supervision can be maintained if the supervisor's assignment will permit him to be home 25 per cent of his time during which he details in his own territory. The main purpose of a supervisor having a small territory is not just to get more work done by letting the supervisor carry part of the load. Instead, experience has shown that supervisors quickly become rusty when they are not exposed to the practical everyday problems of the job. Even though the supervisor's territory is a small one, it serves to keep him tuned up so that he does not lose active touch with the problems for which he is responsible through the men under him.

The territory can also be used effectively as a test territory where the supervisor can try out and develop various detailing techniques and presentations. This test territory can also be a training territory in which the sales manager or sectional manager can contact and work with the supervisor. Let's not forget that supervisors need help and training as well as the representatives and that help and training must come from top Management. It is a sales manger's job to find the best way to sell and then teach it to his supervisors who, in turn, can teach it to their representative.

I have attempted to analyze some of the problems of supervision and to present anwsers to these problems which have been found to be most effective so far. But supervision is never a static problem—it can never be solved once and for all and then forgotten. The repercussions of bad management are so insidious and the benefits of good management so leavening that improvements in methods of management must be continuous.

Regardless of what the forecasters may predict and what the statistics indicate, those sales managers who are on their toes and who can keep their supervisors on their toes are going to get the business. Sales conditions will be just about what we make them for some time to come.

MAGNESIUM SULFATE PASTE: If you have one available, we would like a formula for an epsom salt paste to apply to wounds and swelling surfaces. Columbus.

In answer to your question, I should like to refer you to the "Pharmaceutical Recipe Book," where on page 159 the following formula is given:

Magnesium sulfate, dried at 100°C.	**450 Gm.**
Glycerine	**550 Gm.**
Phenol	**5 Gm.**

Dissolve the phenol in the glycerine and mix with the dried magnesium sulfate in a warm mortar. This paste should be stored in well-closed containers.

What FTC Rules Mean

(*Continued from page 391*)

industry, for the calling of a conference leading up to a set of rules. The members of the industry are generally sold on the theory that they have nothing to lose and much to gain. Manufacturers generally agree that it would be nice to have possible violations set down in easy-to-read form, and they go ahead.

But the drafting of the rules for an industry do not get very far before the legal division of the Commission sticks its oar into the procedings. Quite often this is done behind the scenes and the members of an industry know nothing about it. But sometimes, and this was the case in the first hearing on the proposed rules for the cosmetic industry, they come right into the hearing and read their opinions right into the record that supposedly is to be read by the Commissioners before they agree on the final set of rules. And this legal division of the Commission, which prosecutes the cases in court, apparently wants rules which will leave the provisions of the Robinson-Patman Act in the rules in a completely ambiguous manner. This makes it possible for the legal division to go ahead and prosecute any time they feel like it. But the one thing that should be realized by members of an industry is that the promises of the rules division of the Commission mean very little since the five commissioners themselves are the ones who will approve the final draft and they must listen to the legal division carefully if they are to have a proper set of rules. It is doubtless the struggle between these two divisions in the Commission that delays the issuance of rules for a much longer time than was anticipated, or that results in the final rules often being quite different than what the industry expected. Also these differences of interest in the Commission can be responsible for the announcement by the Commission that no rules will be issued for an industry after the industry and the Commission had gone through all the necessary steps and motions to bring about a set of rules.

Even if a manufacturer is charged with violation of one of the practices condemned in one of the rules which have been promulgated, the fact that this conduct is denounced by a rule is properly admissible as evidence against a respondent, unless it can be shown that in some manner or other he acquiesced in the propriety of such rule or agreed to abide by it. One way in which he might have agreed to abide by any rule is by signing an acceptance form sent around by the Commission to an industry after the rules have been promulgated. However, no one is required to sign this so it is not likely that anyone violating one of the rules would have agreed to abide by them. The only issue in a formal complaint proceeding are whether the respondent has done the things alleged in the complaint, and whether they amount to a violation of some law that the Commission is authorized to enforce. Industry rules do not help to answer either of these questions.

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Trends in Government

(*Continued from page 388*)

We are also familiar with the fact that through bills now pending in Congress the Government may secure control over education by subsidies to schools. It is a well-known fact that where the federal dollar goes, also goes federal control.

In addition, you are familiar with wage and hour laws. And, by the way, it would seem that many of the labor leaders would not have us continue to expand our technical knowledge so as to increase production, but would prefer to have us in the horse-and-buggy era as some of the European countries are today. I do not need to recall to you the foreign trade agreements, and the control the Government exercises over foreign trade shipments.

And, last but not least, we must review the social security setup in considering trends. It is probably true that most of you in this group have the greatest interest in compulsory health insurance plans. But since this is only one part of a huge scheme, I believe we must look at the whole plan as it has been proposed. The proposals that have been made by Mr. Truman and Mr. Ewing, if enacted, would provide care from the cradle-to-the-grave as follows:

1. Doctor bills and hospital expenses paid by health insurance at the time of birth.
2. Periodic checkups and free treatment by the dentist and doctor in childhood.
3. Schooling to be paid for by Federal Government subsidies.
4. An orphan would be supported by Government benefit payments, ranging up to about $72.00 a month.
5. If disabled on the job, a Federal pay check for 26 weeks, or a lifetime pension if permanently disabled.
6. A weekly check of $30.00 if unmarried, and $45.00 if married, for 26 weeks if you lose your job.
7. Free medical care for the entire family.
8. A pension of $96.00 per month if unmarried, and $144.00 if married, at the age of 65.
9. At death the Government pays the funeral expenses up to a sum of $289.00. After death of the husband, a widow with two or more minor childen is entitled to $150.00 per month.

This is all to be paid for by pay roll tax deductions on incomes up to $4800. I have heard it said that to administer the program would require only a few additional employees. But in Germany it required one to every one hundred persons covered. Their experience should be of some value; and, on that basis, we would require in this country about 1,500,000 new clerks, bookkeepers, tax collectors, and administrators on the

Federal pay roll. It is a well-known fact that a bureau or department is like a living organism. Hence when an administrative agency is once launched, it seeks constantly to justify its existence, to perpetuate itself, and to expand.

At the present time, the Federal social security plan merely provides for old-age pensions. Also through State and Federal cooperation, unemployment insurance is provided, and in most states Workmen's Compensation Acts provide for payment of doctor and hospital bills and, in varying degrees, for compensation for loss of time if injured while at work. If the full Truman-Ewing plan is enacted, in a very short while 11 per cent will be deducted from the pay roll; and when the plan becomes fully operative, it will be necessary to collect 18 to 20 per cent as a pay roll tax, half to be paid by the employee and half by the employer. However, self-employed persons will pay the whole tax. If the employee stops to consider matters and remembers the income tax deduction and then adds this proposed deduction on top of that, what will he have for take-home pay?

You will recall that all of these benefits are to be paid from pay roll tax deductions. Now there are many people who have never been on a pay roll. It has not been made clear how they are to be cared for, and in many instances this group is greatly in need of medical services. It is estimated that their care would require about another 2 per cent added to the pay roll tax deductions. But no doubt such funds will have to come from general taxes, which in the long run are paid by the worker. Compulsory health insurance is not the answer to our problem.

A review of the history of various health insurance schemes that have been employed in a number of countries throughout the world shows clearly the deterioration and the destruction of initiative and incentive to do good work on the part of members of the health professions. Under such schemes, a sick person cannot have confidential contacts with his physician due to the fact that if a local board (which is composed of laymen and is responsible for the control of the health plan in the particular community) requests the doctor to reveal to it the diagnosis of one of his patients, he cannot refuse. Under such circumstances, the nature of the patient's ills may become public property in the community.

A physician would be forced to attempt to care for so many patients that he could give only a most cursory consideration to each individual. If the patient actually seemed to be sick, he would probably recommend hospitalization, and since so many other doctors would be doing the same, the problem would arise of insufficient hospital beds. The hospital doctors, including the specialists, in most instances will become Government employees; and, like so many other full-time Government employees, they will be extremely anxious to get through with their work and get out

KOMMON SCENTS!

The battle between Tito and Stalin makes it tough to tell who's right, since each swears he is further left.

This is especially difficult on the average American, who thinks the Cominform is a figure uncorrected by a Maiden Form.

Communist Stalin says Communist Tito is a traitor to the principles of Karl Marx.

Communist Tito says he hasn't heard anything funnier since Groucho Marx.

Naturally, the best informed Americans on the subject of Tito and Stalin are local Communists. Uniformly unaware of the true facts offered by both sides, they feel completely objective in siding with Stalin.

All of which proves Communists should never be confused with Nazis, who always voted, "JA." Much more independent, they unanimously vote "Da." After all, who can view Siberia from Moscow without singing "Baby it's cold outside."

With the whole world professing righteousness, it gets harder to tell the difference between the Third Reich, the Third International, and Major Vaughn's Third Class Refrigerators.

Only Dictator Franco can enjoy the scene. He is trying to convince United Nations Delegates that his concentration camps are really the Castles in Spain they heard about as kids.

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of the office. So again the type of care that will be provided will be the minimum. If a compulsory health insurance program is enacted, a new corps of doctors must be trained before we can expect the physician to be happy under such a scheme. The intellectual equipment and the outlook on life of the new doctor will be different, the result of a change in training in the medical schools.

The medical standards and type of medical care provided in the United States are the best in the world. Printed statistics may show that certain countries have a slightly more favorable mortality rate than is reported for the United States, but if we study the records carefully, it will be found that in most instances statistics on certain segments of the population are not included. American vital statistics are all-inclusive.

The proponents of the compulsory health insurance program have emasculated various statistics in such a way that the average person is either highly confused or completely mislead. For example, the proponents report that there are 325,000 unnecessary deaths each year. How could a compulsory health insurance program prevent the number of deaths that result from automobile accidents? This is merely one example of the fallacy of such a statement. They have very unfairly used the Draft Board statistics and have not taken into consideration the number of boys who were rejected for service because of the amputation of a hand, an arm, or a leg as the result of an accident, nor the numerous cases of congenital abnormalities which in most instances could not have been corrected under a perfect system of medicine. Then the list of rejectees also included a number who were illiterate. The proponents do not point out such facts, but give the impression that under compulsory health insurance there would have been few, if any, rejectees.

Voluntary health insurance is new to our system. While it is not the complete answer to the problem in its present form, voluntary health insurance does afford the American way of doing things. The insurance companies have not had actuary figures upon which to base rates. In the short period of time that voluntary health insurance has been in force, rates have been reduced and more satisfactory types of treatment are available. Improvement in the system will continue. The very meager educational campaign that has been conducted concerning voluntary health insurance has resulted in more than 60,000,000 people being covered by the program. The proponents of compulsory health insurance will tell you that people cannot afford to pay for voluntary health insurance. The fact is ignored that the section of the population which is unable to pay for satisfactory medical care is equally unable to pay for the essentials of sustaining good health standards—such as food, fuel, clothing, and shelter. These are essential to preserve health, and no plan of medical care will work if these requirements remain unfilled. A doctor can treat malnutrition, but if proper food is not at hand, his treatment will be of no avail.

You will recall I pointed out that the large number who are not on pay rolls would not be protected under the compulsory health scheme. Some estimate that this group comprises about 15 per cent of the population. The Federal Government now provides many subsidies, and I am sure one more could be added and that there would be no objections if it would cooperate with the states under a voluntary health insurance plan to take care of those individuals in a particular locality who are not capable of taking care of themselves—the aid to be rendered under local administration and local determination of needs.

Thomas Jefferson stated,

> "How little do my countrymen know the precious blessings they are in possession of which no other country on earth enjoys."

While people of many countries are referred to as free, I believe we will realize they are not free according to our understanding of freedom. The preservation of this freedom is a full-time job for all Americans.

At a labor union meeting recently, Associate Justice William O. Douglas was quoted as saying,

> "The human welfare state is the greatest invention of the twentieth century."

An editorial in the Muncie, Indiana, "Star" stated, in substance, that if Mr. Douglas were steeped in the history of ancient Rome he would never have made such a statement; that the welfare state is neither new nor great. It destroyed the liberty, the security, and the power of the once-glorious Roman Empire.

Franklin B. Snyder, President of Northwestern University, in addressing the recent graduating class, warned that Americans should review the lesson learned from the collapse of the Roman Empire. He pointed out that Rome was literally the mistress of the world (as the United States is today) and that the Roman citizen, like the American , enjoyed freedom within the laws of his own making. Nevertheless, they swiftly and steadily declined into darkness. Rome had the strongest Army and Navy in the world; they had unsurpassed military genius; the rulers bought power at home and favor abroad by gifts of treasure and food. Dr. Snyder asks if America is to follow the disastrous course of the Roman Empire. A look at the record causes one to wonder why more and more Americans seem to feel helpless and inadequate, and unable to take care of themselves, even though our country is in the midst of the greatest production and income era it has ever known.

Congressman Andrew J. Biemiller of Wisconsin, in speaking to the American Federation of Teachers, stated,

> "The welfare state is good Americanism."

On the other hand, Herbert Hoover stated that,

> "Through governmental spending and taxes, our nation is blissfully driving down the back road to collectivism at top speed. Along this road of spending, the government either takes over, which is socialism, or dictates institutional and economic life, which is fascism."

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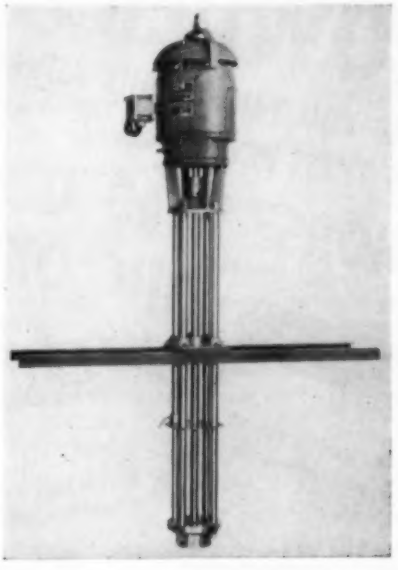

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Mr. Donald Richberg in his address to the Virginia Bar Association which I have already mentioned, in discussing Government trends, stated that the Federal Government is in a

> "stumbling advance into socialism,"

and also that these moves toward socialism

> "are step by step being sanctified by Congress and courts as within the constitutional objectives of the National Government."

If we believe in socialism, we believe in subsidies, doles, Government housing, socialized medicine, Government control of education, unemployment insurance, old-age pensions, and eventually totalitarianism. We do not believe in local Government, local charities, or States' rights. Whether we consider our trend toward socialism, the welfare state, or what not, this question must be answered—is it the American way? The line of demarcation between socialism and communism is so fine that it could be passed over without scarcely noting the change. Truth is the most effective weapon in the defeat of Communism.

In Washington we see and hear many who may be misguided, and others who out of sheer perversity try to gloss over the state of affairs and minimize them. They try to lull us to sleep concerning that which is developing around us. Perhaps the work of this group was what General Dwight D. Eisenhower, President of Columbia University, had in mind when speaking to students who were attending the first Columbia College Forum on Democracy on February 12, Lincoln's Birthday when he stated in part:

> "The kind of dictatorship under which we may fall today is not necessarily brought off by means of a coup d'etat and a suddenly seized power, using the Army or the Navy and its guns to put us all in strait-jackets.
>
> "There is a kind of dictatorship that can come about through a creeping paralysis of thought—readiness to accept paternalistic measures from the Government, an acceptance that is accompanied by a surrender of our own responsibilities and, therefore, a surrender of our own thought over our own lives and our own right to exercise our vote in dictating the policies of this country."

One doubts that General Eisenhower would drag out a "Red Herring."

Perhaps you may wonder why I have taken this time for such a discussion, when all that I have said has been available through numerous sources. But in calling these facts to your attention, my hope is that you will study the voting record of your representatives in Congress, and that you may be encouraged to talk to people in your office, your plant, and to your friends, thereby encouraging greater nation-wide interest in what is going on around us. We must try to salvage what still remains of our freedom and fine institutions. I hope it is not too late.

Search for Rutin

The Atomic Energy Commission has commissioned two University of Rochester scientists to seek new sources of rutin and related compounds with the same effect. It is believed rutin will prevent the innumerable small internal hemorrhages resulting from radiation. Rutin producers deny any shortage exists. They say potential sources could flood the market.

Vitamin Product Claims

(Continued from page 401)

correct or prevent any conditions, particularly affecting children, except where there is a mild deficiency in one or more of the vitamins supplied by
and such deficiency is known to be the cause of those conditions."

Full information concerning a product must be available before labeling or advertising copy can be prepared for a vitamin or mineral preparation. The label must state in clear terms the names and quantities in units, when possible, of all vitamins, and in milligrams the minerals included in the product. The labeling must also be clear concerning the proportion of the minimum daily maintenance requirements of the various vitamins and minerals that are supplied when the product is used as directed.

Most products only supply the minimum requirements or slightly more, and therefore they are of value in preventing deficiency symptoms, but they are not treatments for deficiency diseases. Labeling and advertising claims must be held within these bounds. A person suffering from a vitamin deficiency disease is, as a general rule, suffering from a deficiency of other components of the diet so that it is contended that the sufferer should be under the care of a physician who can determine his full dietary needs.

Operation Pharmacy

(Continued from page 399)

4. Description of the product, with indications for use and the dosage.
5. Clear indication if it is a product which may be sold without a prescription or whether it bears the prescription legend.

This brings up another matter which I have stressed on many occasions. It is the clearer marking of the prescription legend. In many instances it is so small, or seems to be part of the description of the product, or is in such immediate juxtaposition to the description of the product, that the pharmacist, in innocence, sells the item over the counter, thereby violating the law.

I am happy to state that one manufacturer, after I had discussed this with him, is planning to label all of his prescription products with an "Rx," although it will be some time before this packaging will be made ready. In our pharmacy I have ordered labels with a red "Rx" to be applied ourselves when new items arrive which bear the legend. This will prevent making over-the-counter sale in error.

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Patent Thoughts and Trends

(*Continued from page 441*)

emptied from the stomach, excessive alkalinity in the intestinal tract or circulating body fluids, evolution of excessive amounts of gas, and constipating action requiring simultaneous administration of laxatives and in some instances even surgical intervention to remove the obstruction. Necheles and Kroll claim that their novel preparations, which comprise mixtures of carboxymethyl cellulose or its salts with acid neutralizing agents, control acidity over extended periods of time, are non-constipating and promote the healing of ulcerated areas.

The carboxymethyl cellulose may be used as such or preferably in the form of its soluble salts such as lithium, sodium, or potassium salts. Agents said to be suitable for us with the carboxymethyl cellulose or salts thereof are those agents capable of neutralizing acid whose pH however is not so high as to be physiologically detrimental. Examples of such agents are phosphates, carbonates or bicarbonates, oxides or hydroxides or hydrates thereof, and silicates of sodium, potassium, lithium, calcium, magnesium and aluminum.

The inventors feel that their preparation appears to spread over the stomach mucosa as a viscous film in contrast to the action of tablets of commonly used antacids in solution which leave the stomach rapidly, or in particles or suspensions which tend to disperse as small insoluble particles, most of which are expelled from the stomach at a rate dependent on its motility. Necheles and Kroll further state that their preparation appears to cause a reduced volume of secretion to be present in the stomach.

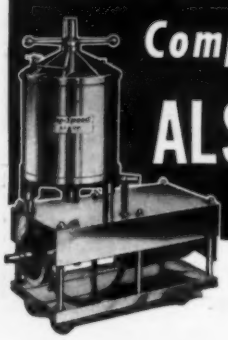
Further, the inventors state that the practical significance of their non-constipating preparations is confirmed by clinical experience with human patients who often become badly constipated on an antacid comprising hydrated aluminum oxide within a period of a few days. Such patients must resort to the use of an agent such as mineral oil which is known to prevent absorption of the fat-soluble vitamins and of essential fatty acids present in the diet. These patients on changing to the Necheles and Kroll preparation are said to become free from constipation without the use of laxatives, etc., and remain so over extended periods.

Removal of Histamine-Like Impurities from Streptomycin

A patent (U. S. 2,480,611) was recently obtained on an improvement in the process of preparing streptomycin, the anti-biotic invented by Professor Waksman, who has received richly-deserved honors for his contributions.

Sheehan and Tishler point out that in the production of streptomycin by cultivation of strains of *Actinomyces griseus* an objectionable impurity which tends to persist in the final product is a histamine-like substance or mixture of substances and this impurity is said to be largely responsible for toxic effects in the therapeutic use of streptomycin, particularly as observed in the histamine-like effect on blood pressure. The inventors find that this impurity as well as certain colored impurities can be almost completely removed in a practical and efficient way by extracting neutral aqueous streptomycin solutions with phenol and removing residual phenol from the aqueous solution by extraction with suitable water-immiscible solvents such as isoamyl alcohol and ether.

In carrying out the process of the present invention, the partially purified



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streptomycin concentrate is dissolved in water, the solution is filtered through a suitable filter aid such as "Super-Cel" (diatomaceous silica), and the pH is adjusted to about 6.5 by adding aqueous alkali such as N sodium hydroxide solution. The neutral solution is then extracted with phenol, preferably in the form of about 90 per cent aqueous phenol at about 25° C. Extraction can be carried out batch-wide by extracting with several portions of aqueous phenol and combining the extracts, or continuously in a suitable extraction column. The aqueous solution is then extracted with suitable water-immiscible solvents such as isoamyl alcohol, isoamyl alcohol followed by ether, and the like, yielding an aqueous solution that gives a negative test (Millions) for phenol.

By this treatment 90 to 100 per cent of the histamine-like substances is said to be removed and the aqueous solution contains 90 to 97 per cent of the original streptomycin activity.

Phenol is said to be unique in its effectiveness. Ortho-cresol is somewhat effective, but it is so much less satisfactory than phenol that it is not considered by the inventors to be an alternate extraction medium.

Recent Patents

2,476,488—Lancome Societe Anonyme—Lipstick Case.

2,476,508—Abbott Labs.—Antisyphilitic Agent—2-pyridone-5-arsenoxide.

2,476,557—National Drug—Benzenesulfonylamide derivatives.

2,476,687—Southern Research Labs.—Therapeutic chewing gum containing organic reducing wax and reducible silver compound.

2,476,912—Upjohn Co.—1-Alkyl-4-Substituted Piperidines.

2,476,944-5—Sharpe & Dohme—Sulfanilamides.

2,477,048-9—Imperial Chemical Industries—Pyrido-acridines.

2,477,148—Merck—2-Alkyl-5, 5-Dimethyl—2-4-Thiazoline-Carboxylic Acids.

2,477,149—Merck—Penicillamines Process.

2,477,158—Merck—Method of Preparing Veratraldehyde from Opianic Acid.

2,477,171—J. O. Bower—Penicillin Compositions Contain Constituents of Animal Blood Remaining After Extraction of Plasma.

2,477,192—Commercial Solvents—Purification of Penicillin Solutions.

2,477,245—Giddings and Hikell—Hair Applicator For Oleaginous Materials.

2,477,292—Wyeth—Polyvinyl-Alcohol coated Suppository.

2,477,479-80—U. S. A.—Anti-Malarials.

2,477,491—E. Lilly—Vitamin Compositions containing B, and the hydrochloride or certain other salts of Nicotinamide or nicotinic acid.

2,477,537—National Drug—P-Nitrobenzyl ethers of Tyrosine.

2,477,560—Hoffmann-La Roche—Preparation of Ribetylamino-benzenes.

2,477,731—Pyridium Corp.—Substituted Aminopyridine-Ethylene Sulfonates.

2,477,812—U. S. A.—Microbiological Production of Riboflavin.

2,477,816—Hoffmann-La Roche—Alpha-acetoxy-diphenyl-acetic acid acetylamide.

2,478,047—Merck—Alpha Amino-Beta, Beta-Diethoxy-Propionic Acid.

2,478,048—Winthrop-Stearns—Sulfanilamido-indazoles.

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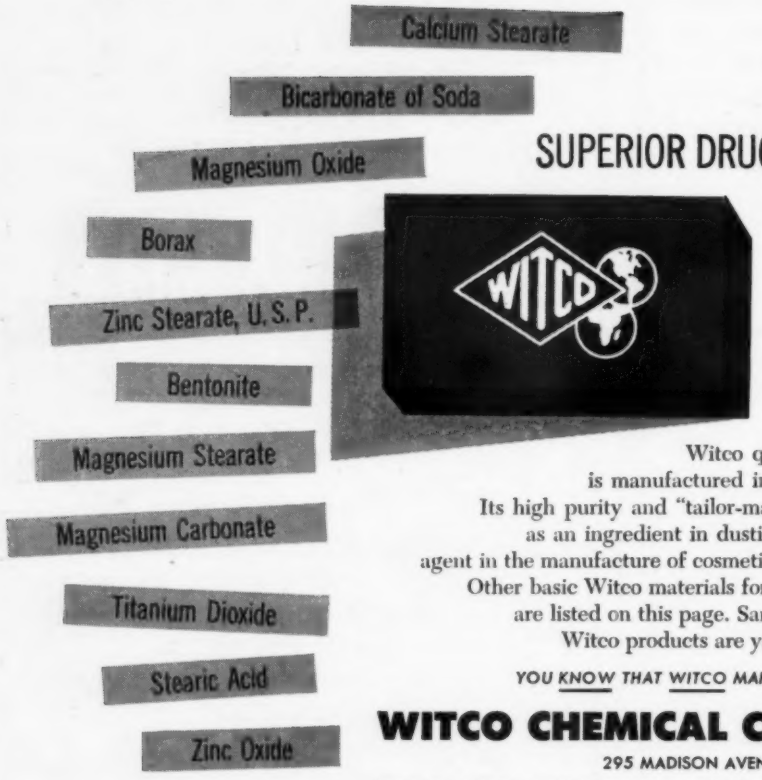

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Crown Cork & Seal Co. 417

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Dow Chemical Co. ..... Insert bet. 376-377; Facing 453
Dow Chemical Co. (Plastics Div.). Insert facing 408
Dreyer, Inc., P. R. ..... Insert facing 369
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Emery Industries, Inc. ..... Insert bet. 372-373
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Fairmount Chemical Co., Inc. 487
Felton Chemical Co., Inc. ..... Insert facing 380
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